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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

IN RE: VOLKSWAGEN "CLEAN DIESEL"
MARKETING, SALES PRACTICES, AND
PRODUCTS LIABILITY LITIGATION

MDL No. 2672 CRB (JSC)

This document relates to:

*Carriage Chevrolet, Inc. v. Volkswagen Group
of America, Inc., et al.*, Case No. 3:16-cv-
00296
*Brown Daub Chevrolet of Nazareth, Inc. v.
Volkswagen Group of America, Inc., et al.*,
Case No. 3:15-cv-06245
*Eagle Auto Mall Corp. v. Volkswagen Group of
America, Inc.*, Case No. 3:15-cv-05923
*Saturn SW Florida LLC et al. v. Volkswagen
Group of America, Inc. et al.*, Case No.
3:15-cv-05959
*Windham Motor Co. Inc. v. Volkswagen Group
of America, Inc., et al.*, Case No. 3:16-cv-
00310

**SECOND AMENDED CONSOLIDATED
COMPETITOR DEALERSHIP CLASS
ACTION COMPLAINT**

JURY TRIAL DEMANDED

**UNREDACTED VERSION OF
DOCUMENT SOUGHT TO BE SEALED**

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1 Plaintiffs Carriage Chevrolet, Inc., Brown Daub Chevrolet of Nazareth, Inc., Eagle Auto
2 Mall Corp., Saturn SW Florida LLC, Bill Branch Chevrolet, Inc., and Windham Motor Company
3 (collectively, “Competitor Dealer Plaintiffs”), individually and on behalf of a class of all others
4 similarly situated (the “Competitor Dealer Class”), for their Consolidated Competitor Dealership
5 Class Action Complaint against (1) the Defendants collectively known as “Volkswagen”:
6 Volkswagen Aktiengesellschaft (“VW AG”), Volkswagen Group of America, Inc. (“VW
7 America”) (together, “VW”), Audi Aktiengesellschaft (“Audi AG”), Audi of America, LLC
8 (“Audi America”) (together, “Audi”), Dr. Ing. h.c. F. Porsche Aktiengesellschaft (“Porsche AG”),
9 Porsche Cars North America, Inc. (“Porsche America”) (together, “Porsche”), Martin Winterkorn
10 (“Winterkorn”), and Michael Horn (“Horn”); and (2) the Defendants collectively known as
11 “Bosch”: Robert Bosch GmbH (“Bosch GmbH”), Robert Bosch, LLC, (“Bosch LLC”) and
12 Volkmar Denner (“Denner”) (together, “Bosch”).¹ Plaintiffs allege the following based upon
13 information and belief, the investigation of counsel, and personal knowledge as to the factual
14 allegations pertaining to themselves.

15 INTRODUCTION

16 1. This case arises out of one of the most brazen corporate crimes in history, a
17 cautionary tale about winning at any cost. Volkswagen cheated its way to the top of the
18 automotive food chain and spared no victim along the way, targeting its customers, U.S. and
19 foreign regulators, and even the very air we breathe. The linchpin of Volkswagen’s fraudulent
20 scheme was the deliberate use of a “defeat device,” a secretly embedded software algorithm that,
21 as Defendants have since admitted, was designed and installed to cheat emission tests, thereby
22 fooling the Environmental Protection Agency (“EPA”), among other regulators, into approving
23 for sale hundreds of thousands of non-compliant cars (the “Class Vehicles”). For years,
24 Volkswagen got away with it, and the Class Vehicles were sold at record numbers into our stream
25 of commerce. Once on the roads, these cars spewed millions of pounds of harmful nitrogen oxide

26 ¹ VW AG, Audi AG, and Porsche AG are sometimes collectively referred to as the “German
27 Volkswagen Defendants,” and VW America, Audi America, and Porsche America are
28 collectively referred to as the “American Volkswagen Defendants.” Winterkorn, Horn, Müller,
and Stadler are collectively referred to as the “Volkswagen Individual Defendants,” and
inclusively with Denner as the “Individual Defendants.”

1 (“NOX”) pollutants into our air at a rate of up to 40 times the legal limit. All the while,
2 Volkswagen pitched itself to the American public as the world’s foremost innovator of “clean”
3 diesel technology, duping hundreds of thousands of environmentally conscious consumers who
4 were willing to pay a premium for “clean” diesel vehicles, and cheating the Competitor Dealer
5 Plaintiffs and the Competitor Dealer Class members who sold cars that were actually clean and
6 fuel-efficient, and whose vehicles would otherwise have been selected by the consumers
7 Volkswagen duped into purchasing the Class Vehicles.

8 2. Fraud fueled Volkswagen’s success, and its only real “clean” diesel innovation
9 was how it played dirty. Its ingeniously-designed defeat devices, software installed on engine
10 management systems supplied by defendant Bosch, detected when its dirty diesel engines were
11 being tested in a lab or smog station and triggered performance-sapping controls to simulate
12 compliance with emission laws. But when the test ended, and the driver returned to the road
13 under normal operation and use, the performance – and the illegal belch of pollution – returned.
14 Everything about Volkswagen’s fraudulent scheme was coolly calculated, as defendant Horn,
15 CEO of VW America, confessed in the fall of 2015 at Congressional hearings: “[the defeat
16 device] was installed for this purpose, yes.”²

17 3. Volkswagen not only programmed its vehicles to cheat on emissions tests, it used
18 fraud and misrepresentation to sell them. Repeatedly (and falsely) touting the Class Vehicles as
19 environmentally friendly and fuel efficient, and insisting (falsely) that these advantages could be
20 coupled with spectacular performance, Volkswagen systematically misrepresented to the general
21 public the nature and quality of the Class Vehicles, in order to influence consumers to purchase
22 the Class Vehicles, to the detriment of sellers of competing vehicle, including the Competitor
23 Dealer Plaintiffs and the members of the Competitor Dealer Class.

24 4. Volkswagen promised low-emission, environmentally friendly vehicles, with high
25 fuel economy and exceptional performance, and consumers bought them in record numbers. In
26

27 ² See Bill Chappell, *‘It Was Installed For This Purpose,’ VW’s U.S. CEO Tells Congress About*
28 *Defeat Device*, NPR (Oct. 8, 2015), available at <http://www.npr.org/sections/thetwo-way/2015/10/08/446861855/volkswagen-us-ceo-faces-questions-on-capitol-hill>.

1 fact, Volkswagen has sold more diesel cars in the U.S. than every other automaker combined.³
2 From 2009 to 2015, Volkswagen sold and/or leased approximately 580,000 dirty diesels that its
3 defeat device disguised as clean. In doing so, Volkswagen secretly turned the most
4 environmentally conscious consumers into some of the biggest polluters on the road – and
5 charged them a premium in the process.

6 5. In so doing, Volkswagen diverted sales from vehicles that truly offered low
7 emissions and that truly were fuel efficient, to the detriment of the dealers selling those
8 competing vehicles. The environmentally conscious consumers who paid a premium for the
9 Class Vehicles would have purchased different, competing vehicles had they known the truth.

10 6. Instead, there are over half a million cars on American roads with illegal emission
11 systems that never should have left the factory, and would not have, but for Volkswagen's
12 fraudulently obtained EPA Certificates of Conformity ("COCs"). The profits Volkswagen earned
13 on these vehicles rightfully belongs to the Competitor Dealer Plaintiffs and the members of the
14 class they seek to represent. Since the revelation of Volkswagen's scheme, the Department of
15 Justice ("DOJ") has filed a complaint alleging numerous violations of the Clean Air Act
16 ("CAA"), state attorneys general have announced investigations and filed lawsuits concerning
17 Volkswagen's fraudulent scheme, and countless other government entities have launched criminal
18 and civil investigations around the globe.

19 7. The Class Vehicles include the following:

2.0-liter Class Vehicles	
Volkswagen Jetta TDI	2009-2015
Volkswagen Jetta SportWagen TDI	2009-2014
Volkswagen Beetle TDI	2012-2015
Volkswagen Beetle Convertible TDI	2012-2015
Audi A3 TDI	2010-2015
Volkswagen Golf TDI	2010-2015
Volkswagen Golf SportWagen TDI	2015
Volkswagen Passat TDI	2012-2015

27 ³ *Clean Diesel*, VOLKSWAGEN (last visited Feb. 8, 2016), *previously available at*,
28 <http://www.vw.com/features/clean-diesel/>.

3.0-liter Class Vehicles	
Volkswagen Touareg TDI	2009-2016
Porsche Cayenne Diesel	2013-2016
Audi A6 Quattro TDI	2014-2016
Audi A7 Quattro TDI	2014-2016
Audi A8 TDI	2014-2016
Audi A8L TDI	2014-2016
Audi Q5 TDI	2014-2016
Audi Q7 TDI	2009-2016

8. The Competitor Dealer Plaintiffs, individually and on behalf of all others similarly situated, now seek an award of damages caused by Defendants' false representations, disgorgement of Defendants' profits earned through their false representations, an injunction prohibiting Defendants from further engaging in false representations and further relief set forth below.

JURISDICTION AND VENUE

9. This Second Amended Consolidated Competitor Dealership Class Action Complaint amends and supersedes the Consolidated Amended Competitor Dealership Class Action Complaint which amended above-captioned actions, and which was also filed as a Consolidated Class Action Complaint on behalf of the competitor dealership Plaintiffs in the MDL No. 2672 proceedings, pursuant to Pretrial Order No. 7 therein.

10. This Court has jurisdiction over this action pursuant to the Class Action Fairness Act ("CAFA"), 28 U.S.C. § 1332(d), because at least one Class member is of diverse citizenship from one Defendant, there are more than 100 Class members, and the aggregate amount in controversy exceeds \$5,000,000, exclusive of interest and costs. Subject-matter jurisdiction also arises under 28 U.S.C. § 1331 and 15 U.S.C. § 1121, in that the claims of the Competitor Dealer Plaintiffs arise under the laws of the United States, specifically under the Lanham Act, 15 U.S.C. 1125. The Court has personal jurisdiction over Defendants pursuant to 18 U.S.C. §§ 1965(b) and (d), and Cal. Code Civ. P. § 410.10, and supplemental jurisdiction over the state-law claims pursuant to 28 U.S.C. § 1367.

11. Venue is proper in each of the districts in which these cases have been filed in that a substantial part of the events or omissions giving rise to the claim occurred in each such district.

PARTIES

A. Individual and Representative Plaintiffs

12. Plaintiff CARRIAGE CHEVROLET, INC., (“Carriage Chevrolet”) is a corporation organized and existing under the laws of the State of Tennessee, with its principal place of business in Lincoln County, Tennessee. Carriage Chevrolet is a car dealership that marketed and sold vehicles that competed with the Class Vehicles, including the 2014 and 2015 Chevrolet Cruze Diesel.

13. Plaintiff BROWN DAUB CHEVROLET OF NAZARETH, INC., (“Brown Daub”) is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, with its principal place of business at 819 Nazareth Pike, Nazareth, Pennsylvania. Brown Daub is a car dealership that marketed and sold vehicles that competed with the Class Vehicles, including the 2014 and 2015 Chevrolet Cruze Diesel.

14. Plaintiff EAGLE AUTO MALL CORP. (“Eagle Auto”) is a corporation existing under the laws of the State of New York, with its principal place of business in Suffolk County, New York. Eagle Auto is a car dealership that marketed and sold vehicles that competed with the Class Vehicles, including the 2014 and 2015 Chevrolet Cruze Diesel, as well as Mazda and Kia vehicles.

15. Plaintiff SATURN SOUTHWEST FLORIDA LLC (“Saturn SW Florida”) is a limited liability company organized and existing under the laws of the State of Michigan with its principal place of business in the State of Florida and its sole shareholder a Florida corporation. Saturn SW Florida operated a car dealership that, in the period 2002-2010, marketed and sold vehicles that competed with the Class Vehicles, including one or more Saturn models.

16. Plaintiff BILL BRANCH CHEVROLET, INC. D/B/A VICTORY LAYNE CHEVROLET (“Victory Layne”) is a corporation organized and existing under the laws of the State of Florida with its principal place of business in Fort Myers, Florida. Victory Layne is a car dealership that marketed and sold vehicles that competed with the Class Vehicles, including the 2014 and 2015 Chevrolet Cruze Diesel.

1 17. Plaintiff WINDHAM MOTOR COMPANY, INC., (“Windham”) is a corporation
2 organized and existing under the laws of the State of Alabama, with its principal place of business
3 in Marengo County, Alabama. Windham is a car dealership that marketed and sold vehicles that
4 competed with the Class Vehicles, including the 2014 and 2015 Chevrolet Cruze Diesel.

5 **B. Defendants**

6 **1. Volkswagen Defendants**

7 **a. Volkswagen AG**

8 18. Volkswagen AG (“VW AG”) is a German corporation with its principal place of
9 business in Wolfsburg, Germany. VW AG is one of the largest automobile manufacturers in the
10 world, and is in the business of designing, developing, manufacturing, and selling automobiles.
11 VW AG is the parent corporation of VW America, Audi AG, and Porsche AG. According to VW
12 AG, it sold 10.14 million cars worldwide in 2014 – including 6.12 million VW-branded cars, 1.74
13 million Audi-Branded cars, and 189,849 Porsche-branded cars. Combined with other brands,
14 VW AG boasts a 12.9% share of the worldwide passenger car market. VW AG’s sales revenue in
15 2014 totaled €202 billion (approximately \$221 billion) and sales revenue in 2013 totaled €197
16 billion (approximately \$215 billion). At €12.7 billion (approximately \$13.9 billion), VW AG
17 generated its highest ever operating profit in fiscal year 2014, beating the previous record set in
18 2013 by €1.0 billion (approximately \$1.1 billion).

19 19. VW AG engineered, designed, developed, manufactured, and installed the defeat
20 device software on the Class Vehicles equipped with the 2.0-liter and 3.0-liter TDI engines and
21 exported these vehicles with the knowledge and understanding that they would be sold throughout
22 the United States. Audi developed the 3.0-liter TDI diesel engine utilized in the VW Touareg and
23 Porsche Cayenne Class Vehicles. VW AG also developed, reviewed, and approved the marketing
24 and advertising campaigns designed to sell the Class Vehicles.

25 **b. Volkswagen Group of America, Inc.**

26 20. Volkswagen Group of America, Inc. (“VW America”) is a New Jersey corporation
27 with its principal place of business located at 2200 Ferdinand Porsche Drive, Herndon, Virginia
28 20171. VW America is a wholly-owned subsidiary of Volkswagen AG, and it engages in

business, including the advertising, marketing and sale of Volkswagen automobiles, in all 50 states. In 2014 alone, VW America sold 552,729 vehicles from its 1,018 dealer locations in all 50 states, including 95,240 TDI “clean” diesel vehicles.

c. Audi AG

21. Audi AG (“Audi AG”) is a German corporation with its principal place of business in Ingolstadt, Germany. Audi AG is the parent of Audi of America, LLC and a subsidiary of the Audi Group, which is a wholly-owned subsidiary of VW AG. Audi AG designs, develops, manufacturers, and sells luxury automobiles. According to Audi AG, the Audi Group sold 1.74 million cars worldwide in 2014, with sales revenues in 2014 totaling €53.8 billion (approximately \$58.5 billion). Audi AG’s operating profit in fiscal year 2014 was €5.15 billion (approximately \$5.63 billion).

22. Audi AG engineered, designed, developed, manufactured and installed the defeat device software on the Class Vehicles equipped with the 3.0-liter TDI diesel engine, and exported these vehicles with the knowledge and understanding that they would be sold throughout the United States. Audi AG also developed, reviewed, and approved the marketing and advertising campaigns designed to sell its Audi Class Vehicles. According to the U.S. government, approximately 80,000 3.0-liter TDI® diesel engine vehicles containing the defeat device were sold by VW, Audi and Porsche in the United States.

d. Audi of America, LLC

23. Audi of America, LLC (“Audi America”) is a Delaware limited liability company with its principal place of business located at 2200 Ferdinand Porsche Drive, Herndon, Virginia 20171. Audi America is a wholly-owned U.S. subsidiary of Audi AG, and it engages in business, including the advertising, marketing and sale of Audi automobiles, in all 50 states.

e. Dr. Ing. h.c. F. Porsche AG

24. Dr. Ing. h.c. F. Porsche AG (“Porsche AG”) is a German corporation with its principal place of business located in Stuttgart, Germany. Porsche AG designs, develops, manufacturers, and sells luxury automobiles. Porsche AG is a wholly-owned subsidiary of VW AG. According to Porsche AG, it sold 187,208 cars worldwide in 2014, with sales revenues in

1 2014 totaling €17.2 billion (approximately \$18.8 billion). Porsche AG's operating profit in fiscal
2 year 2014 was €2.79 billion (\$2.97 billion).

3 25. Porsche AG installed the defeat device software on the Class Vehicles equipped
4 with the 3.0-liter TDI diesel engine, designed by Audi and calibrated for use in the Porsche
5 Cayenne, and exported these vehicles with the knowledge and understanding that they would be
6 sold throughout the United States. Porsche executives and engineers had previously worked at
7 Audi, including overseeing development of the 3.0-liter TDI diesel engine, and Porsche personnel
8 had knowledge of the defeat device. Porsche AG also developed, reviewed, and approved the
9 marketing and advertising campaigns designed to sell its Class Vehicles.

10 **f. Porsche Cars North America, Inc.**

11 26. Porsche Cars North America, Inc. ("Porsche America") is a Delaware corporation
12 with its principal place of business located at 1 Porsche Drive, Atlanta, Georgia 30354. Porsche
13 America is a wholly-owned U.S. subsidiary of Porsche AG, and it engages in business, including
14 the advertising, marketing and sale of Porsche automobiles, in all 50 states. According to Porsche
15 AG, 2014 represented its best annual results in Porsche history in the U.S., with 47, 007
16 automobiles delivered. Porsche America now maintains a network of 189 dealers nationwide.

17 **g. Martin Winterkorn**

18 27. Martin Winterkorn is a resident of Germany. Winterkorn was CEO of VW AG
19 until he resigned on September 23, 2015, in the wake of the diesel emissions scandal. Notably,
20 Winterkorn was widely regarded as a detail-oriented, micromanaging CEO, who retained control
21 over engineering details that many other CEOs would relinquish fully to deputies. Winterkorn is
22 being investigated by the German government for allegations of fraud. Winterkorn reportedly
23 hand-picked the engineers who designed the defeat devices. According to news reports,
24 Winterkorn was also the head of Audi when the idea of defeat device software was first
25 considered years earlier. Winterkorn received compensation from the illegal scheme and course
26 of conduct based on the revenues and profits from the Class Vehicles, and Volkswagen's
27 increased market share. Winterkorn approved, authorized, directed, ratified, and/or participated
28 in the acts complained of herein. Winterkorn is subject to the personal jurisdiction of this Court

1 as he has availed himself of the laws of the United States through his management and control
2 over VW America as well as the manufacture, distribution, testing, and sale of hundreds of
3 thousands of Class Vehicles imported and sold across the United States. Furthermore,
4 Winterkorn has consistently travelled to the U.S. to attend and make presentations at various car
5 shows across the country in order to promote the sale of the Class Vehicles.

6 **h. Michael Horn**

7 28. Michael Horn is a resident of Virginia. Horn was President and CEO of VW
8 America until he resigned on March 9, 2016. Horn received compensation from the illegal
9 scheme and course of conduct based on the revenues and profits from the Class Vehicles, and
10 Volkswagen's increased market share. Horn approved, authorized, directed, ratified, and/or
11 participated in the acts complained of herein. Horn has admitted that he was aware of the
12 vehicles' emissions non-compliance since at least 2014.

13 **2. Bosch Defendants**

14 29. From at least 2005 to 2015, Bosch GmbH, Bosch LLC and CEO Volkmar Denner
15 (together, "Bosch") were knowing and active participants in the creation, development,
16 marketing, and sale of illegal defeat devices specifically designed to evade U.S. emissions
17 requirements in vehicles sold solely in the United States. Even though Bosch has produced little
18 discovery, the evidence obtained by Plaintiffs to date shows that Bosch participated not just in the
19 development of the defeat device, but in the scheme to prevent U.S. regulators from uncovering
20 the device's true functionality. Moreover, Bosch's participation was not limited to engineering
21 the defeat device (in a collaboration described as unusually close). Rather, Bosch marketed
22 "Clean Diesel" in the United States and lobbied U.S. regulators to approve Class Vehicles,
23 another highly unusual activity for a mere supplier. These lobbying efforts, taken together with
24 evidence of Bosch's actual knowledge that the "akustikfunktion" operated as a defeat device, and
25 participation in concealing the true functionality of the device from U.S. regulators, can be
26 interpreted only one way under U.S. law: Bosch was a knowing and active participant in a
27 massive, decade-long conspiracy with VW to defraud U.S. consumers.

1 **b. Robert Bosch GmbH**

2 30. Robert Bosch GmbH (“Bosch GmbH”) is a German multinational engineering and
3 electronics company headquartered in Gerlingen, Germany. Bosch GmbH is the parent company
4 of Robert Bosch LLC. Bosch GmbH, directly and/or through its North-American subsidiary
5 Robert Bosch LLC, at all material times, designed, manufactured, developed, tailored, reviewed,
6 approved, and supplied elements of the defeat device to Volkswagen for use in the Class
7 Vehicles. Bosch GmbH is subject to the personal jurisdiction of this Court because it has availed
8 itself of the laws of the United States through its management and control over Bosch, LLC, and
9 over the design, development, manufacture, distribution, testing, and sale of hundreds of
10 thousands of the defeat devices installed in the Class Vehicles sold or leased in the U.S.

11 **c. Robert Bosch, LLC**

12 31. Robert Bosch LLC (“Bosch LLC”) is a Delaware limited liability company with
13 its principal place of business located at 38000 Hills Tech Drive, Farmington Hills, Michigan
14 48331. Bosch LLC is a wholly-owned subsidiary of Bosch GmbH, which wholly owns and
15 controls Bosch LLC. At all material times, Bosch LLC, directly and/or in conjunction with its
16 parent Bosch GmbH, designed, manufactured, developed, tailored, reviewed, approved, and
17 supplied elements of the defeat device to Volkswagen for use in the Class Vehicles.

18 32. Both Bosch GmbH and Bosch LLC (together with Volkmar Denner, “Bosch”) operate under the umbrella of the Bosch Group, which encompasses some 340 subsidiaries and
19 companies. The Bosch Group is divided into four business sectors: Mobility Solutions (formerly
20 Automotive Technology), Industrial Technology, Consumer Goods, and Energy and Building
21 Technology. The Mobility Solutions sector, which supplies parts to the automotive industry, and
22 its Diesel Systems division, which develops, manufactures and applies diesel systems, are
23 particularly at issue here and include the relevant individuals at both Bosch GmbH and Bosch
24 LLC. Bosch’s sectors and divisions are grouped not by location, but by subject matter. Mobility
25 Solutions includes the relevant individuals at both Bosch GmbH and Bosch LLC. Regardless of
26 whether an individual works for Bosch in Germany or the U.S., the individual holds him or
27 herself out as working for Bosch. This collective identity is captured by Bosch’s mission
28

1 statement: “We are Bosch,” a unifying principle that links each entity and person within the
2 Bosch Group.⁴

3 **d. Volkmar Denner**

4 33. Volkmar Denner (“Denner”) is a resident of Germany. Denner has been the
5 Chairman and CEO of Bosch GmbH since July 1, 2012, and contemporaneously holds the
6 position of Chief Technology Officer. Denner joined Bosch in 1986, and has held numerous
7 positions within the company, including, Director of ECU Development; Vice-President of Sales
8 and Development, Semiconductors and Electronic Control Units division; and President of
9 Automotive Electronics division. In 2006, Denner became a member of Bosch GmbH’s Board of
10 Management and was later responsible for research and advance engineering, product planning,
11 and technology coordination across the company’s three business sectors from July 2010 until his
12 appointment as CEO. Denner received millions of dollars from the illegal scheme and course of
13 conduct based on the revenues and profits from the sale of defeat devices to Volkswagen. Denner
14 approved, authorized, directed, ratified, and participated in the acts complained of herein. He is
15 subject to the personal jurisdiction of this Court because he has availed himself of the laws of the
16 United States through his management and control over Bosch LLC, as well as the design,
17 development manufacture, distribution, testing, and sale of hundreds of thousands of the defeat
18 devices installed in the Class Vehicles sold or leased in the U.S.

19 **COMMON FACTUAL ALLEGATIONS**

20 **A. Volkswagen’s Plot to Dominate the Automotive Market**

21 34. Volkswagen’s decade-long illegal scheme was born out of greed and ambition to
22 dominate the global automotive market at any cost. By Volkswagen’s own admissions, the seeds
23 for the scandal were planted in 2005, as Volkswagen was repositioning its fleet in light of
24 tightening emission regulations in our country with “a strategic decision to launch a large-scale
25 promotion of diesel vehicles in the United States in 2005.”⁵ While other automakers focused on

26 ⁴ Bosch 2014 Annual Report: “Experiencing quality of life,” available at
27 [http://www.bosch.com/en/com/bosch_group/bosch_figures/publications/archive/archive-](http://www.bosch.com/en/com/bosch_group/bosch_figures/publications/archive/archive-cg12.php)
28 [cg12.php](http://www.bosch.com/en/com/bosch_group/bosch_figures/publications/archive/archive-cg12.php).

⁵ *Volkswagen making good progress with its investigation, technical solutions, and Group*

Footnote continued on next page

1 hybrid or hydrogen-fueled vehicles, Volkswagen pivoted toward “clean” diesel technology as its
2 primary strategy to reach the growing market of environmentally-conscious consumers.

3 35. In 2004, the second generation Toyota Prius became an explosive success, tripling
4 global sales from years prior and changing environmentally-friendly vehicles from a niche market
5 to a standard consumer option. Although it was the first mainstream hybrid vehicle, the Prius was
6 widely viewed as a “boring” vehicle, as the improvements in fuel efficiency and emissions were
7 offset by relatively bland styling and lackluster driving performance.

8 36. Volkswagen took note of the success and sought to achieve the same (or better)
9 efficiency benchmarks as the Prius, but in a “fun-to-drive,” high-performance vehicle. This was
10 to be achieved with a supposedly remarkable breakthrough in diesel technology: the EA 189 TDI
11 engine. Volkswagen’s TDI (short for “turbocharged direct injection,”) diesel engines were the
12 culmination of millions of dollars in research and development, and were heralded as the critical
13 factor that would be responsible for Volkswagen’s growth and success in the U.S.

14 37. In 2007, defendant Winterkorn left his position at Audi to become VW AG’s CEO.
15 Winterkorn set goals for Volkswagen to become a world leader in automobile manufacturing.
16 This included a target of tripling U.S. sales to at least 800,000 vehicles by 2018.⁶ At the time,
17 diesel-engine vehicles made up just 5% of the U.S. car market, and Winterkorn recognized this as
18 the perfect opportunity to expand Volkswagen’s market share. As shown below in a VW
19 America presentation touting the success of “Clean Diesel,” this strategy was employed with
20 great success.⁷

21
22
23
24 *Footnote continued from previous page*
25 *realignment*, Volkswagen AG (Dec. 10, 2015),
http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/12/VW_PK.html.

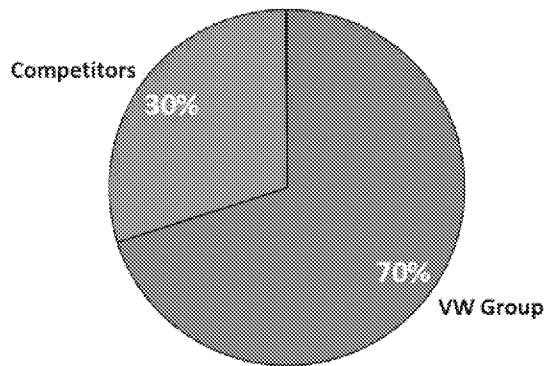
26 ⁶ William Boston, *Volkswagen Emissions Investigation Zeroes In on Two Engineers*, Wall Street
27 Journal (Oct. 5, 2015), <http://www.wsj.com/articles/vw-emissions-probe-zeroes-in-on-two-engineers-1444011602>.

28 ⁷ *Volkswagen AG, TDI: U.S. Market Success*, Clean Diesel Delivers (March, 2015),
http://cleandieseldelivers.com/media/Douglas-Skorupski-VWoA_DTF_March2015.pdf.

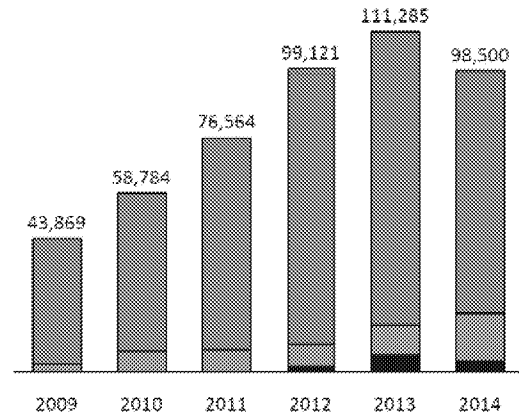
Diesel is an important differentiator for the VW Group

TDI – Turbocharged Direct Injection Diesel

Clean Diesel volume Cars and SUVs 2014



Volkswagen Group Clean Diesel Sales Volume



VW Group US Diesel market share PC ~ 70 %

March 2015



Strong growth since introduction

Source for competitor sales: Fitch

VWGoA- Product Strategy

4



38. To expand its diesel market penetration in the U.S., Volkswagen needed to overcome the stigmas associated with diesel vehicles. Foremost among these was the consumer perception that diesel engines emit thick, toxic smoke full of dangerous and destructive pollutants, relegated to the smog-filled cities of the past. Volkswagen claimed to have solved all of these environmental problems with the new EA 189 engine, which it aggressively marketed as the clean, green alternative to hybrid engines, such as those in the Prius.

39. Behind the scenes, however, Volkswagen realized internally that it was not possible to roll out these so-called “clean” diesel vehicles within its self-imposed budgets and engineering constraints. To get the job done, Winterkorn appointed two engineers with whom he had worked closely at Audi (Ulrich Hackenberg and Wolfgang Hatz⁸) to head up R&D and engine development for this project. These two engineers were the chief developers of the TDI engine.⁹ Their primary mandate from management was to develop a diesel engine that maintained the performance of traditional gasoline engines with reduced CO₂ emissions and fuel

⁸ Hatz, head of engine development at Volkswagen, and formerly at Audi, subsequently became head of development for Porsche.

⁹ Jack Ewing, *Volkswagen Engine-Rigging Scheme Said to Have Begun in 2008*, N.Y. Times (Oct. 5, 2015), <http://www.nytimes.com/2015/10/05/business/engine-shortfall-pushed-volkswagen-to-evade-emissions-testing.html>.

1 consumption, all while meeting the strict NO_x emission standards in the U.S. Winterkorn also
2 relied upon and worked closely with Frank Tuch, VW's head of quality assurance, who was
3 intimately familiar with the engines and transmissions across all Volkswagen brands.

4 40. NO_x is a generic term for the mono-nitrogen oxides NO and NO₂ (nitric oxide and
5 nitrogen dioxide), which are predominantly produced from the reaction of nitrogen and oxygen
6 gases in the air during combustion. NO_x is produced by the burning of all fossil fuels, but is
7 particularly difficult to control from the burning of diesel fuel. NO_x is a toxic pollutant, which
8 produces smog and a litany of environmental and health problems, as detailed further below.

9 41. Diesel fuel is traditionally denser than gasoline, and the syrupy fuel contains
10 longer hydrocarbon chains, which tends to produce a more efficient vehicle. In fact, diesel
11 engines can convert over 45% of diesel's chemical energy into useful mechanical energy,
12 whereas gasoline engines convert only 30% of gasoline's chemical energy into mechanical
13 energy.¹⁰ To make use of this dense diesel fuel, diesel engines combine high pressure to ignite a
14 combination of diesel fuel and air through "compression ignition," as opposed gasoline engines
15 that typically use electric discharge from a spark plug to ignite a combination of gasoline and air
16 through "spark ignition." Though more efficient, diesel engines come with their own set of
17 challenges, as emissions from diesel engines can include higher levels of NO_x and particulate
18 matter ("PM"), or soot than emissions from gasoline engines due to the different ways the
19 different fuels combust and the different ways the resulting emissions are treated following
20 combustion. One way NO_x emissions can be reduced by adjusting the compression and
21 temperature, but that in turn produces PM, a similarly-undesirable hydrocarbon-based emission.
22 Another way NO_x emissions can be reduced is through expensive exhaust gas aftertreatment
23 devices, primarily, catalytic converters, that use a series of chemical reactions to transform the
24 chemical composition of a vehicle's NO_x emissions into less harmful, relatively inert, and triple
25 bonded nitrogen gas (N₂; just over 78% of the Earth's atmosphere by volume consists of N₂) and
26 carbon dioxide (CO₂).

27 ¹⁰ *Just the Basics, Diesel Engine*, U.S. Dept. of Energy, Office of Energy Efficiency and
28 Renewable Energy (last visited Feb. 8, 2016), *available at*
http://www1.eere.energy.gov/vehiclesandfuels/pdfs/basics/jtb_diesel_engine.pdf.

42. Diesel engines thus operate according to this trade-off between price, NO_x and PM, and for the EPA to designate a diesel car as a “clean” vehicle, it must produce **both** low PM and low NO_x. In 2000, the EPA announced stricter emission standards requiring all diesel models starting in 2007 to produce drastically less NO_x than years prior.

43. These strict emission standards posed a serious challenge to Volkswagen’s engineers. In fact, during a 2007 demonstration in San Francisco, engine R&D chief Hatz lamented presciently that “[Volkswagen] can do quite a bit and we will do a bit, but ‘impossible’ we cannot do. . . . From my point of view, the CARB is not realistic . . . I see it as nearly impossible for [Volkswagen].”¹¹

44. But it was of utmost importance for Volkswagen to achieve (or at least appear to achieve) this “impossible” goal, for it could not legally sell a single vehicle that failed comply with the governmental emission regulations. Before introducing a Class Vehicle into the U.S. stream of commerce (or causing the same), Volkswagen was required to first apply for, and obtain, an EPA-administered COC, certifying that the vehicle comported with the emission standards for pollutants enumerated in 40 C.F.R. §§ 86.1811-04, 86.1811-09, and 86.1811-10.

45. The CAA expressly prohibits automakers, like Volkswagen, from introducing a new vehicle into the stream of commerce without a valid EPA COC. *See* 42 U.S.C. § 7522(a)(1). Moreover, vehicles must be accurately described in the COC application “in all material respects” to be deemed covered by a valid COC. *See* 40 C.F.R. §§ 86.1848-10(c)(6). California’s emission standards were even more stringent than those of the EPA. California’s regulator, CARB, requires a similar application from automakers to obtain an EO, confirming compliance with California’s emission regulations, before allowing the vehicle onto California’s roads.

46. Thus, in order to successfully grow the U.S. diesel market and meet its ambitious objectives, it was critical that Volkswagen develop the technology to maintain the efficient,

¹¹ Danny Hakim, *et al.*, *VW Executive Had a Pivotal Role as Car Maker Struggled With Emissions*, N.Y. Times (Dec. 21, 2015), <http://www.nytimes.com/2015/12/22/business/international/vw-executive-had-a-pivotal-role-as-car-maker-struggled-with-emissions.html?mtrref=undefined&gwh=7E46E42F7CCC3D687AEC40DFB2CFA8BA&gwt=pa> y.

1 powerful performance of a diesel, while drastically reducing NOx emissions to comply with the
2 CAA and state emission standards.

3 47. This high-stakes engineering dilemma led to a deep divide within the company, as
4 two divergent exhaust gas aftertreatment technical approaches emerged. One approach involved
5 a selective catalytic reduction (“SCR”) system that proved to be effective but expensive. The
6 other, which utilized a lean NOx trap, was significantly cheaper but was less effective and
7 resulted in lower fuel efficiency.

8 48. In 2006, Wolfgang Bernhard, then a top executive at VW AG (and former Daimler
9 executive), advocated for the SCR system and championed a technology-sharing agreement with
10 Mercedes-Benz and BMW to jointly develop a SCR emission control system utilizing urea— a
11 post-combustion emission reductant generically referred to as “Diesel Exhaust Fluid” or “DEF”
12 and marketed as “Bluetec” by Mercedes and “AdBlue” by Volkswagen and other German vehicle
13 manufacturers. When injected into the exhaust stream in a catalyst chamber, converts NOx into
14 nitrogen gas, water, and carbon dioxide. This SCR system was expensive, costing \$350 per
15 vehicle and came with other compromises, including, primarily, the need for installation of a DEF
16 tank that would require regular refills.

17 49. Hatz initially supported this solution as well, stating publicly at the Detroit Auto
18 Show in early 2007 that “Bluetec technology allows us to demonstrate Audi’s commitment to
19 always being at the very forefront of diesel technology.”¹² Although the SCR system was
20 ultimately utilized for the larger, 3.0-liter TDI engine, Hatz withdrew his support for using the
21 system in the 2.0-liter engine as Volkswagen’s leadership balked at the \$350 per-vehicle cost of
22 the SCR system. Bernhard ultimately lost the internal battle at Volkswagen and resigned.

23 50. Hatz remained and was tasked with implementing the alternative, lower-cost
24 strategy for the 2.0-liter TDI engine: NO_x traps. This technology involved the storage of NO_x
25 emissions in a catalyst substrate during vehicle operation. Once that substrate filled up, the
26 system burned off the stored NO_x by pumping an extra burst of fuel into the cylinders, most of
27 which passed through to the converter, where it then converts the NO_x into less harmful

28 ¹² *Id.*

1 emissions. This method was cheaper and easier to implement than the SCR system. The NO_x
2 trap system was less effective at reducing emissions, however, and, like the more effective SCR
3 system used in the 3.0-liter engine, still resulted in lower miles-per-gallon fuel efficiency, directly
4 contradicting one of the key elements (high miles-per-gallon fuel efficiency) necessary to execute
5 Volkswagen's ambitious diesel sales goals. Accordingly, this option, too, was unacceptable.

6 51. But at Volkswagen, failure was not an option. According to many sources
7 (including journalists, industry insiders, and Volkswagen whistleblowers), Volkswagen's top
8 brass directed its engineers to find a way to meet emission standards despite tight budgetary and
9 technical constraints, or suffer the consequences. VW AG's former CEO, Ferdinand Piëch,
10 created "a culture where performance was driven by fear and intimidation," and his leadership
11 was characterized as "a reign of terror."¹³ Employees were told, "[y]ou will sell diesels in the
12 U.S., and you will not fail. Do it, or I'll find somebody who will."¹⁴ Piëch was infamous for
13 firing subordinates who failed to meet his exacting standards: "Stories are legion in the industry
14 about Volkswagen engineers and executives shaking in their boots prior to presentations before
15 Piech, knowing that if he was displeased, they might be fired instantly."¹⁵ And so it seems, out of
16 self-preservation, the defeat device scandal was born.

17 **B. Defendants' Illegal "Defeat Device" Scheme**

18 52. Volkswagen engineers had to find a solution to the "impossible" problem of
19 passing stricter emission standards while maintaining performance and fuel efficiency, all while
20 hamstrung by cost-cutting measures. And it had to be done fast, because the new diesel vehicles
21 were scheduled for imminent release in the U.S.

22 53. Ultimately, time ran out, and Volkswagen executives and engineers were either
23 unable or unwilling to devise a solution within the constraints of the law and their self-imposed
24 cost-cutting measures. So instead of being honest (and risk being summarily fired), they and

25 ¹³ Bob Lutz, *One Man Established the Culture That Led to VW's Emissions Scandal*, Road &
26 Track (Nov. 4, 2015), <http://www.roadandtrack.com/car-culture/a27197/bob-lutz-vw-diesel-fiasco/>.

27 ¹⁴ *Id.*

28 ¹⁵ Doron Levin, *The man who created VW's toxic culture still looms large*, Fortune (Oct. 16, 2015), <http://fortune.com/2015/10/16/vw-ferdinand-piech-culture/>.

1 others conspired to cheat by installing a “defeat device” in the new diesel vehicles so that those
2 vehicles could “pass” the EPA and CARB emission testing, and Volkswagen could obtain COCs
3 and EOs to sell the vehicles to make its sales targets throughout the U.S and in California.

4 54. Volkswagen had a ready-made solution at hand. As reported by the New York
5 Attorney General, starting as far back as 1999, Audi engineers had come up with a similar
6 solution to a problem they were facing related to the development of the 3.0-liter diesel engine for
7 Audi models sold in Europe. The engineers had eliminated a noise problem associated with
8 diesel engines by injecting additional fuel into the engine on ignition. But as a result, the engine
9 could not meet European emissions standards during testing. To solve this problem, they
10 developed defeat device software that could recognize when the car was being tested and
11 deactivate the fuel injection function during testing, then reactivate it during normal driving
12 conditions. From 2004-2008, Audi incorporated the defeat device software in its 3.0-liter diesel
13 engines sold in Europe. Since the defeat device software was related to the goal of reducing
14 engine noise, it became known as the “Acoustic Function” or, in German, the “Akustikfunktion.”

15 55. When it became clear that the 2.0-liter TDI engine being developed for the U.S.
16 market could not meet U.S. emission regulations, and initial emission testing failed, the launch of
17 the Jetta TDI “clean” diesel, initially scheduled for 2007, had to be delayed.¹⁶ The prospect of
18 failure was unacceptable, so Volkswagen decided to cheat instead. Starting in the mid-2000s,
19 Volkswagen engineers, working with Bosch—as detailed further below—and with the knowledge
20 of management, adapted Audi’s “akustikfunktion” concept to the 2.0-liter and 3.0-liter diesel
21 engines for Volkswagen, Audi, and Porsche models to be sold in the U.S. It has been reported
22 that the decision to cheat the EPA, CARB, and countless other regulators worldwide was an
23 “open secret” in Volkswagen’s engine development department,¹⁷ as it was necessary for the “EA
24 189 engine to pass U.S. diesel emissions limits within the budget and time frame allotted.”¹⁸ The

25 ¹⁶ *VW delays Jetta TDI diesel into the US*, Clean MPG (last visited Feb. 8, 2016),
26 <http://www.cleanmpg.com/community/index.php?threads/7254/>.

27 ¹⁷ Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*,
Reuters (Jan. 23, 2016), <http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7>.

28 ¹⁸ Jay Ramey, *VW chairman Poetsch: Company ‘tolerated breaches of rules’*, Autoweek

Footnote continued on next page

1 resulting defeat device was incorporated into the software required to operate the 2.0-liter and
2 3.0-liter TDI engines in the Class Vehicles.

3 56. As explained further below, the defeat device that Defendants installed in the Class
4 Vehicles to evade emission testing is software code residing the vehicles' control unit. All
5 modern engines are integrated with sophisticated computer components to manage the vehicle's
6 operation, such as, in the case of diesel vehicles, an electronic diesel control ("EDC"). The EDC
7 equipped in the Class Vehicles is formally referred to as the Electronic Diesel Control Unit 17
8 (also known as "EDC Unit 17," "EDC 17," and "EDC17"). Defendant Bosch tested,
9 manufactured, and sold customized EDC Unit 17's to Volkswagen for use in the Class Vehicles.

10 57. The EDC Unit 17 was widely used throughout the automotive industry, including
11 by BMW and Mercedes, to operate modern "Clean Diesel" engines. Bosch worked with each
12 vehicle manufacturer that utilized a EDC Unit 17 to create a unique set of specifications and
13 software code to manage the vehicle's engine operation.

14 58. With respect to the Class Vehicles, however, EDC Unit 17 was also used to
15 surreptitiously evade emissions regulations. Bosch and Volkswagen worked together to develop
16 and implement a specific set of software algorithms for implementation in the Class Vehicles,
17 including algorithms to adjust fuel levels, exhaust gas recirculation, air pressure levels, and urea
18 injection rates.¹⁹

19 59. Bosch's EDC Unit 17 was necessary for the Class Vehicles to "pass" emission
20 tests in the U.S. When carmakers test their vehicles against EPA emission standards, they place
21 their cars on dynamometers (large rollers) and then perform a series of specific maneuvers
22 prescribed by federal regulations. Bosch's EDC Unit 17 allowed the Class Vehicles to detect test
23 scenarios by monitoring vehicle speed, acceleration, engine operation, air pressure and even the
24 position of the steering wheel. When the EDC Unit 17's detection algorithm detected that the

25 *Footnote continued from previous page*

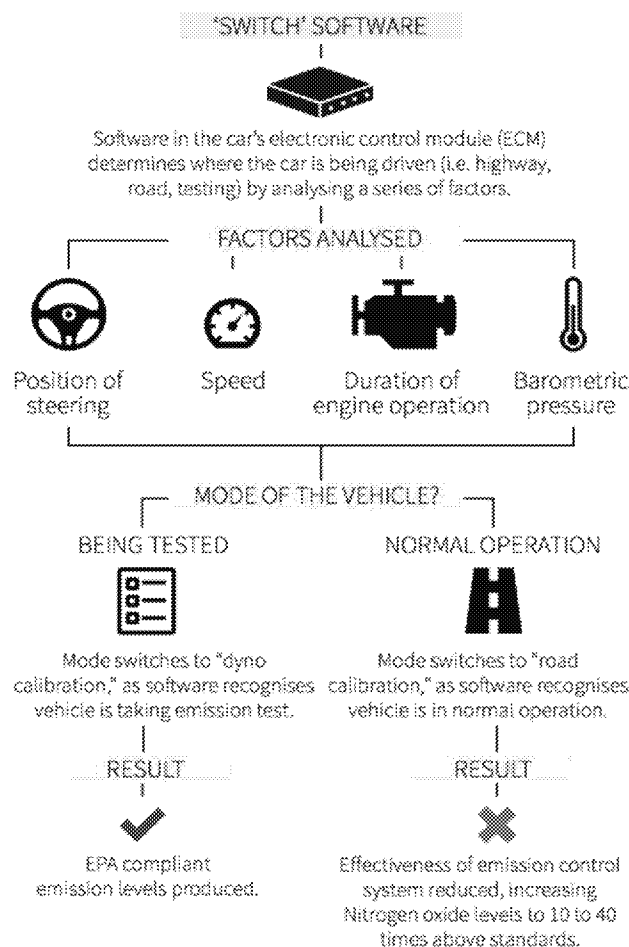
26 (Dec. 10, 2015), <http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules>.

27 ¹⁹ See, e.g., *Engine management*, Bosch Auto Parts (last visited February 8, 2016),
28 http://de.bosch-automotive.com/en/parts_and_accessories/motor_and_sytems/diesel/engine_management_2/engine_control_unit_1.

vehicle was on a dynamometer (and undergoing an emission test), additional software code within the EDC Unit 17 downgraded the engine's power and performance and upgraded the emissions control systems' performance by switching to a "dyno calibration," temporarily reducing emissions to legal levels. Once the EDC Unit 17 detected that the emission test was complete, the EDC Unit would then enable a different "road calibration" that caused the engine to return to full power while reducing the emissions control systems' performance, and consequently, caused the car to spew the full amount of illegal NO_x emissions out on the road.²⁰

This process is illustrated in the following diagram:

How Volkswagen's defeat device works



Source: U.S. Environmental Protection Agency

J. Wang, 22/09/2015

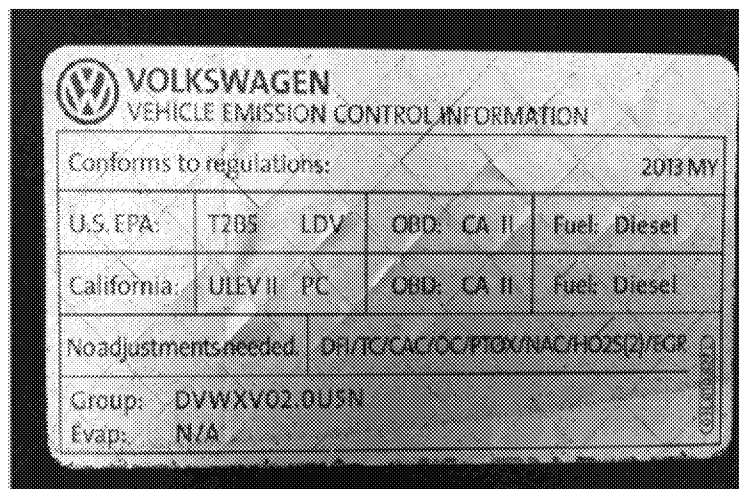
REUTERS

²⁰ Russell Hotten, *Volkswagen: The scandal explained*, BBC (Dec. 10, 2015), <http://www.bbc.com/news/business-34324772>.

60. Make no mistake: this workaround was highly illegal. And, according to the New York Attorney General, Volkswagen management was well aware of this fact, as they studied the issue extensively during 2006-2007 when preparing to launch their vehicles in the U.S. market.

61. The CAA expressly prohibits “defeat devices,” defined as any auxiliary emission control device “that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use.” 40 C.F.R. § 86.1803-01; *see also id.*, § 86.1809-10 (“No new light-duty vehicle, light-duty truck, medium-duty passenger vehicle, or complete heavy-duty vehicle shall be equipped with a defeat device.”). Moreover, the CAA prohibits the sale of components used as defect devices, “where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use.” 42 U.S.C. § 7522(a)(3). Finally, in order to obtain a COC, automakers must submit an application, which lists all auxiliary emission control devices installed in the vehicle, a justification for each, and an explanation of why the control device is not a defeat device.

62. Thus, in order to obtain the COCs necessary to sell their vehicles, Volkswagen did not disclose, and affirmatively concealed, the presence of the test-detecting and performance altering software code within the EDC Unit 17 from government regulators, thus making that software an illegal “defeat device.” In other words, Volkswagen lied to the government, its customers, and the public at large. An example of one of Volkswagen’s vehicle stickers reflecting its fraudulently-obtained COCs is pictured below:



63. Because the COCs were fraudulently-obtained, and because the 2.0-liter and 3.0-liter Class Vehicles did not conform “in all material respects” to the specifications provided in the COC applications, the Class Vehicles were never covered by a valid COC, and thus, were never legal for sale, nor were they EPA and/or CARB compliant, as represented. Volkswagen hid these facts from the EPA, other regulators, and consumers, and it continued to sell and lease the 2.0-liter and 3.0-liter Class Vehicles to the driving public, despite their illegality.

64. Volkswagen knew better—VW America itself is a recidivist violator of the CAA. In July of 1973, the EPA sought legal action against VW America from the DOJ based on a claim that defeat devices were installed in 1973 Volkswagen vehicles. The matter was swiftly settled for \$120,000 the following year.²¹ And, in June of 2005, VW America entered into a consent decree with the DOJ, wherein it paid a \$1.1 million penalty for failing to notify the EPA of emissions problems in certain vehicles manufactured by VW in Mexico.²²

65. Volkswagen cheating continued. With respect to the Class Vehicles, Volkswagen hid the fact of the defeat devices from the EPA, such that the COCs were fraudulently obtained. Specifically, VW America submitted COC applications on behalf of VW AG, Audi AG, and itself, for the 2.0-liter and VW-and Audi-branded 3.0-liter Class Vehicles, describing compliant specifications and concealing the dual-calibration strategy of the defeat device. Similarly, Porsche America submitted COC applications on behalf of Porsche AG and itself for the Porsche-branded 3.0-liter Class Vehicles, describing compliant specifications and concealing the dual-calibration strategy of the defeat device. VW America coordinated the submission of these and other regulatory submissions with Audi and Porsche to ensure that discrepancies among the companies’ submissions did not alert regulators to emission problems with the Class Vehicles.²³ Executives from the companies even devised a policy of cross brand communication and coordination to minimize the risk that U.S. regulators would learn of fraudulent representations

²¹ Rich Gardellsa, *et al.*, *VW had previous run-in over ‘defeat devices’*, NBC News (Sept. 23, 2015), <http://www.cnbc.com/2015/09/23/vw-had-previous-run-in-over-defeat-devices.html>.

²² Consent Decree, *United States v. Volkswagen of Am., Inc.*, Case No. 1:05-cv-01193-GK (D.D.C. June 15, 2005 and Nov. 4, 2005), ECF Nos. 1-2.

²³ VW-MDL2672-00570461.

1 contained in regulatory filings.²⁴ But, the Class Vehicles differed in “material respects” from the
2 specifications described in the COC applications because they were equipped with undisclosed
3 auxiliary emissions control devices, specifically, the software code described above, that
4 functioned as an illegal “defeat device.”

5 66. Because the COCs were fraudulently obtained, the Class Vehicles were never
6 covered by valid COCs, and thus, were never offered legally for sale. Volkswagen hid these facts
7 from the EPA, CARB and other regulators, and consumers, and it continued to sell and lease the
8 illegal Class Vehicles to the public with the help of Bosch.

9 **C. Bosch Played a Critical Role in the Defeat Device Scheme**

10 67. Discovery of Bosch has just begun, but the evidence already proves that Bosch
11 played a critical role in scheme to evade U.S. emission requirements in the Class Vehicles.²⁵ *In*
12 *2008, Bosch wrote Volkswagen and expressly demanded that Volkswagen indemnify Bosch for*
13 *anticipated liability arising from the use of the Bosch-created “defeat device” (Bosch’s words),*
14 *which Bosch knew was “prohibited pursuant to . . . US Law.”*²⁶ Volkswagen apparently
15 refused to indemnify Bosch, but Bosch nevertheless continued to develop the so-called
16 “akustikfunktion” (the code name used for the defeat device) for Volkswagen for another seven
17 years. During that period, Bosch concealed the defeat device in communications with U.S.
18 regulators once questions were raised about the emission control system in the Class Vehicles,
19 and went so far as to actively lobby lawmakers to promote Volkswagen’s “Clean Diesel” system
20 in the U.S. Bosch’s efforts, taken together with evidence of Bosch’s actual knowledge that the
21 “akustikfunktion” operated as an illegal defeat device, demonstrate that Bosch was a knowing and
22 active participant in the decade-long illegal enterprise to defraud U.S. consumers.

23
24
25 ²⁴ VW-MDL2672-00412718.

26 ²⁵ Plaintiffs’ detailed and specific allegations against Bosch are based almost entirely on
27 information produced by Volkswagen, publicly-available documents, and Plaintiffs’ own
28 research. Bosch has produced a small number of documents, none of which merit consideration
for Plaintiffs’ allegations against Bosch.

²⁶ VW-MDL2672-02570091 (English translation) (emphasis added).

1 **1. Volkswagen and Bosch Conspire to Develop the Illegal Defeat Device**

2 68. Bosch tightly controlled development of the control units in the Class Vehicles,
3 and actively participated in the development of the defeat device.

4 69. As discussed above, Bosch introduced a new generation of diesel ECUs for
5 Volkswagen. The development of the EDC17 was a massive undertaking, which began years
6 before Volkswagen began its push into the U.S. market. At least twenty Bosch engineers were
7 working full-time on writing the code for the EDC17 in the 2001 time frame. By 2004, long
8 before the November 20, 2006 meeting at which Volkswagen apparently decided to use the defeat
9 device to “pass” emission certification standards in the U.S., Bosch and Volkswagen had already
10 entered into preliminary agreements for further development of the EDC17.²⁷

11 70. A February 28, 2006, Bosch press release introduced the “New Bosch EDC17
12 engine management system” as the “brain of diesel injection” which “controls every parameter
13 that is important for effective, low-emission combustion.” The EDC17 offered “[e]ffective
14 control of combustion” and a “[c]oncept tailored for all vehicle classes and markets.” In the press
15 release, Bosch touted the EDC17 as follows:

16 **EDC17: Ready for future demands**

17 Because the computing power and functional scope of the new
18 EDC17 can be adapted to match particular requirements, it can be
19 used very flexibly in any vehicle segment on all the world’s
20 markets. In addition to controlling the precise timing and quantity
21 of injection, exhaust gas recirculation, and manifold pressure
22 regulation, it also offers a large number of options such as the
23 control of particulate filters or systems for reducing nitrogen
24 oxides. The Bosch EDC17 determines the injection parameters for
25 each cylinder, making specific adaptations if necessary. This
26 improves the precision of injection throughout the vehicle’s entire
27 service life. The system therefore makes an important contribution
28 to observing future exhaust gas emission limits.²⁸

25 ²⁷ See PowerPoint presentation at VW-MDL2672-02559528. This internal Volkswagen
26 PowerPoint describes the “akustikfunktion” as activated in “recognition of emission related
27 environment conditions” and proposed it as a solution to the “registration/certification [problem]
28 in the US.”

27 ²⁸ See Feb. 28, 2006 Bosch press release, “The brain of diesel injection: New Bosch EDC17
28 engine management system,” [http://www.bosch-](http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en)
[presse.de/presseforum/details.htm?txtID=2603&locale=en](http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en).

1 71. Bosch's EDC17 was the technology behind Volkswagen's ambition. The EDC17
2 and the development of its underlying software were integral to Volkswagen's entire diesel
3 strategy, which by late 2006 included creating software to sense when the vehicles were in test
4 mode and then manipulate the emission control system at that time. This could not have been
5 accomplished without years of collaborative work with Bosch.

6 72. As early as February 2005, an internal feasibility study drafted by Ulrich
7 Hackenberg (Audi Development Chief) mentioned Bosch's EDC17 as part of a strategy to reduce
8 diesel vehicle emissions of nitrogen oxides ("NOx") by creating a change in engine electronics.²⁹
9 The study discussed diesel strategies in the U.S. market in light of tightening U.S. emission
10 standards. As discussed above, shortly after the cheating scandal became public, Volkswagen
11 suspended Hackenberg, and he later resigned.³⁰

12 73. Bosch made clear that the EDC17 was not one-size-fits-all. Instead, it was a
13 "[c]oncept tailored for all vehicle classes and markets" that could "be adapted to match particular
14 requirements [and] ... be used very flexibly in any vehicle segment on all the world's markets."
15 The EDC17 was tailored and adapted by modifying the sophisticated software embedded within
16 the electronic control unit ("ECU"). Bosch manufactured, developed, and provided the ECU and
17 its base of software to Volkswagen for the Class Vehicles.

18 74. Bosch and Volkswagen worked together closely to modify the software, and to
19 create specifications for each vehicle model. Indeed, customizing a road-ready ECU is an
20 intensive three- to five-year endeavor involving a full-time Bosch presence at an automaker's
21 facility. Bosch and its customers work so closely that Bosch purposefully locates its component
22 part manufacturing facilities close to its carmaker customers' manufacturing plants.

23 75. All Bosch ECUs, including the EDC17, run on complex, highly proprietary engine
24 management software over which Bosch exerts near-total control. In fact, the software is
25 typically locked to prevent customers, like Volkswagen, from making significant changes on their

26 ²⁹ VW-MDL2672-00744825.

27 ³⁰ Jack Ewing, *Audi Executive Resigns After Suspension over VW Emissions Scandal*, NY. Times
28 (Dec. 4, 2015), <http://www.nytimes.com/2015/12/05/business/international/ulrich-hackenberg-suspended-over-volkswagen-emissions-scandal-resigns.html>.

own. The defeat device was just such a software change—one that would allow modifications to the vehicle’s emission control to turn on only under certain circumstances—that Volkswagen could not have made without Bosch’s participation.

76. Bosch’s security measures further confirm that its customers cannot make significant changes to Bosch software without Bosch involvement. Bosch boasts that its security modules protect vehicle systems against unauthorized access in every operating phase, meaning that no alteration could have been made without either a breach of that security—and no such claims have been advanced—or Bosch’s knowing participation.³¹

77. Unsurprisingly, then, at least one car-company engineer has confirmed that Bosch maintains absolute control over its software as part of its regular business practices:

I’ve had many arguments with Bosch, and they certainly own the dataset software and let their customers tune the curves. Before each dataset is released it goes back to Bosch for its own validation.

Bosch is involved in all the development we ever do. They insist on being present at all our physical tests and they log all their own data, so someone somewhere at Bosch will have known what was going on.

All software routines have to go through the software verification of Bosch, and they have hundreds of milestones of verification, that’s the structure

The car company is *never* entitled by Bosch to do something on their own.³²

78. Thus, Bosch cannot convincingly argue that the development of the “akustik” device was the work of a small group of rogue engineers.

79. In fact, Volkswagen’s and Bosch’s work on the EDC17 reflected a highly unusual degree of coordination. It was a massive project that required the work of numerous Bosch coders for a period of more than ten years, or perhaps more.³³ Although Bosch publicly

³¹ *Reliable Protection for ECUs* (May 12, 2016), <https://www.escript.com/company/single-news/detail/reliable-protection-for-ecus/>.

³² Michael Taylor, *EPA Investigating Bosch over VW Diesel Cheater Software*, Car and Driver (Nov. 23, 2015), <http://blog.caranddriver.com/epa-investigating-bosch-over-vw-diesel-cheater-software/>.

³³ Approximately 50,000 of Bosch’s 375,000 employees worked in the diesel-technology operations branch of Bosch, and Volkswagen was the biggest diesel manufacturer in the world. See *Bosch Probes Whether Its Staff Helped VW’s Emissions Rigging*, Automotive News (Jan. 27, 2015), <http://www.autonews.com/story/news/2015/01/27/bosch-probes-whether-its-staff-helped-vws-emissions-rigging/214111/>.
Footnote continued on next page

1 introduced the EDC17 in 2006, it had started to develop the engine management system years
2 before.³⁴

3 80. The size and complexity of the undertaking is captured by a spreadsheet that lists
4 entries for work done by Volkswagen and Bosch employees on the EDC17 from late 2003 to
5 2009. Each entry is given one of six descriptors: enhancement, new feature, service, support,
6 integration, or bug/defect. In total, the spreadsheet contains 8,565 entries and lists hundreds of
7 Bosch individuals.³⁵

8 81. The joint enterprise is also memorialized in a series of agreements between Bosch
9 and Volkswagen dating back to as early as mid-2005, reflecting negotiations that date prior to
10 January, 2005. On April 7, 2005, for example, Bosch GmbH's Ulrich Gralka and Dr. Holfelder
11 executed the "Framework Development Agreement for Software Sharing in EDC/MED17
12 Control Unit Projects from the Robert Bosch (RB) Diesel Systems (DS) And Gasoline Systems
13 (GS) Motor Vehicle Units." VW AG countersigned the agreement on September 26, 2005.
14 Importantly, the agreement defined software sharing as "the handing over of BOSCH software in
15 the form of object code by BOSCH to VW, so that VW can use this BOSCH software as a basis
16 for developing VW modules for specific EDC/ME(D)17 projects using software development
17 environments from BOSCH." The agreement states that "[p]roviding the VW modules and
18 integrating them to form a complete software product requires close cooperation between the
19 Parties."

20 82. The contract also outlined responsibilities for software sharing and co-
21 development. Throughout development, the contract dictated, Bosch was to retain control over
22 the software. While Bosch provided (and owned) the object code, and Volkswagen developed
23 (and owned) the modules, the parties agreed that "BOSCH carries out any modifications to the
24

25 *Footnote continued from previous page*

26 2016), <http://www.autonews.com/article/20160127/COPY01/301279955/bosch-probes-whether-its-staff-helped-vws-emissions-rigging>.

27 ³⁴ Feb. 28, 2006 Bosch press release, "The brain of diesel injection: New Bosch EDC17 engine
28 management system," [http://www.bosch-
presse.de/presseforum/details.htm?txtID=2603&locale=en](http://www.bosch-presse.de/presseforum/details.htm?txtID=2603&locale=en).

³⁵ VW-MDL2672-02559780.

1 BOSCH software that are necessary in order to integrate the intended VW modules at the expense
2 of VW.” The agreement further specifies that Bosch would monitor the software, test the
3 implementation of Volkswagen modules, and grant written approval to Volkswagen modules.
4 Only if everything met Bosch’s standards would it then “deliver[] the final complete software
5 product for VW to use in combination with a BOSCH control unit.”³⁶ Thus, Bosch needed to
6 conduct extensive testing before delivering the product to V.

7 83. Yet another document demonstrates the tight grip that Bosch maintained over
8 EDC17 software and any modifications made to it. On February 20, 2006, VW AG and Bosch
9 (signed by Bosch GmbH’s Dr. Steffen Berns, Senior Vice President of the Diesel Systems
10 division), entered into a supplemental agreement concerning the use of “expanded software”
11 documentation for the EDC17 and EDC16 (its predecessor).³⁷ Pursuant to this agreement, Bosch
12 identified 35 named individuals, affiliated with either VW AG or IAV (Ingenieurgesellschaft
13 Auto und Verkehr), who were granted access to expanded documentation for the EDC17 for
14 specific functions relating to emissions. Any changes to the list of persons to be given access
15 required the explicit consent of Bosch GmbH, and the access was temporary and non-transferable.
16 Critically, the agreement stated that “[t]his right of use shall not include the right to the change,
17 modify or use the DOCUMENTATION with third-party control units.”³⁸ Bosch thereby tightly
18 controlled both who could access the expanded documentation and the scope of their use of such
19 materials.

20 84. A later agreement between Bosch GmbH and Volkswagen, this one from a June
21 12, 2006, governed the implementation, integration, project management, and delivery of certain
22 EDC 17 software functions for diesel vehicles that VW AG had requested from Bosch. This
23 agreement, too, made clear that any changes not explicitly detailed in the agreement would
24 require further approval from Bosch.

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27 ³⁶ Volkswagen produced an English translation of the agreement at VW-MDL2672-03752699.

28 ³⁷ Volkswagen produced an English translation of the agreement at VW-MDL2672-03752757.

³⁸ VW-MDL2672-03752757.

1 85. Along the same lines, several years later, in a February 5, 2011 agreement, Bosch
2 granted VW AG a license to further develop Bosch Denoxtronic functions for the treatment of
3 exhaust from diesel engines. Again, the contract is clear that Bosch maintains rights over the
4 Denoxtronic functions.

5 86. To recap, as the EA 189 project moved to series production in 2009, Bosch's
6 documented role was to provide to Volkswagen executable software for installation in the EDC17
7 controller at the VW production line.³⁹ Bosch insisted that Bosch control the definition of the
8 EDC17 software, that Bosch test the software using bench top and vehicle testing, that Bosch
9 produce the final software release for series production, and that Bosch deliver the software to
10 Volkswagen for installation in the EA 189 engines used in the Class Vehicles. Bosch's firm
11 control over the development of and modifications to EDC17 is undeniable. It is inconceivable,
12 then, that Bosch did not know that the software it was responsible for defining, developing,
13 testing, maintaining and delivering contained an illegal defeat device.

14 87. In fact, Bosch was in on the secret and knew that Volkswagen was using Bosch's
15 software algorithm as an "on/off" switch for emission controls when the Class Vehicle was
16 undergoing testing. As noted above, it has been said the decision to cheat was an "open secret" at
17 Volkswagen.⁴⁰ It was an "open secret" at Bosch as well.

18 88. Volkswagen and Bosch personnel employed code language for the defeat device,
19 referring to it as the "acoustic function" (in German, "akustikfunktion"). As described above, the
20 roots of the "akustikfunktion"—and likely the cheating—can be traced back to the late 1990's
21 when Audi devised software called the "akustikfunktion" that could switch off certain functions
22 when the vehicle was in a test mode.⁴¹ The "akustik" term is derived from the function's ability

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24 ³⁹ VW-MDL2672-03752699.

25 ⁴⁰ Georgina Prodham, *Volkswagen probe finds manipulation was open secret in department*,
Reuters (Jan. 23, 2016), <http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7>. See also Jay Ramey, *VW chairman Poetsch: Company 'tolerated breaches of rules'*, Autoweek (Dec. 10, 2015), <http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules> (it was necessary for the "EA 189 engine to pass U.S. diesel emissions limits within the budget and time frame allotted.").

27 ⁴¹ [https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/diesel-gates-roots-](https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/diesel-gates-roots-stretch-back-to-audi?ref=MTI5ODU1)
28 [stretch-back-to-audi?ref=MTI5ODU1](https://global.handelsblatt.com/edition/413/ressort/companies-markets/article/diesel-gates-roots-stretch-back-to-audi?ref=MTI5ODU1).

1 to modify the noise and vibration produced by the engine. News articles report that, in 2006, VW
2 AG further developed this “akustikfunktion” for the Class Vehicles.⁴²

3 89. Written communications between and within Bosch and Volkswagen describe the
4 “akustikfunktion” in surprising detail. In emails sent as early as July 2005 from VW AG’s
5 Andreas Specht to Bosch’s Kilian Bucher, Tobias Lang, Michael Moeker, and Carlos Alvarez,
6 Specht discussed emissions measurements from vehicles using the “akustikfunktion” in
7 connection with U.S. emission compliance.⁴³ A February 2014 PowerPoint prepared by VW AG
8 explained that the akustikfunktion measured speed, acceleration, and engine operation to
9 determine whether a vehicle is undergoing testing.⁴⁴

10 90. On November 13, 2006, VW AG’s Dieter Mannigel (Software Design, U.S. Diesel
11 Engines, Drivetrain Electronics) circulated via email a PowerPoint presentation prepared for VW
12 AG’s Rudolf Krebs (who joined Volkswagen from Audi in 2005) about how the
13 “akustikfunktion” is activated and deactivated in recognition of emissions-related environmental
14 conditions, such as temperature and pressure. The presentation explained that the existing
15 vehicles functioning with different drive cycles could not pass U.S. emission tests, and thus
16 proposed the release of the “akustikfunktion” to be driving dependent.⁴⁵

17 91. On November 20, 2006, Mannigel emailed his colleagues to summarize a meeting
18 with Krebs, at which the PowerPoint described above was likely presented. Krebs had
19 emphasized the importance of not getting caught by U.S. regulators using the “akustikfunktion,”

20 ⁴² Volkswagen Probe Finds Manipulation Was Open Secret in Department: Newspaper”, *Reuters*
21 (Jan. 23, 2016), [http://www.reuters.com/article/us-volkswagen-emissions-investigation-](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7)
22 [idUSKCN0V02E7](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7). VW Group Chairman, Hans Dieter Poetsch, explained that a small group of
23 engineers and managers was involved in the creation of the manipulating software. *See* VW
24 Chairman Poetsch: Company ‘Tolerated Breaches of Rules’”, *Auto Week* (Dec. 10, 2015),
25 [http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-](http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules)
26 [breaches-rules](http://autoweek.com/article/vw-diesel-scandal/vw-chairman-poetsch-company-tolerated-breaches-rules). *See also* “Scandal Explained”, *BBC*, Dec. 10, 2015,
27 <http://www.bbc.com/news/business-34324772>; Sept. 18, 2015, [http://www.autocar.co.uk/car-](http://www.autocar.co.uk/car-news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works)
28 [news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works](http://www.autocar.co.uk/car-news/industry/vw-emissions-scandal-how-volkswagens-defeat-device-works).

⁴³ VW-MDL2672-02559611.

⁴⁴ VW-MDL2672-02572122.

⁴⁵ VW-MDL2672-02559527. The email attached an internal Volkswagen PowerPoint that describes the “akustikfunktion” as activated in recognition of emission related environment conditions and proposed it as a solution to the registration emissions certification problems in the U.S. (VW-MDL2672-02559528).

1 and warned that the function must be explainable to regulators. Krebs was skeptical about using
2 the akustikfunktion in the U.S. market due to potential regulatory and legal exposure, and
3 Mannigel was nervous that regulators would be able to detect the “akustikfunktion.”
4 Nevertheless, Mannigel reported, Volkswagen was going ahead with the expanded
5 “akustikfunktion” with Bosch.⁴⁶ It is likely this was the meeting at which VW decided to use the
6 “akustikfunktion” as a defeat device to evade compliance with U.S. emission requirements.

7 92. Well after the defeat device was developed and integrated into hundreds of
8 thousands of Class Vehicles, Volkswagen and Bosch continued to work together to refine and
9 maintain it. For example, both Bosch and Volkswagen were involved in the calibration of the
10 defeat devices for the Class Vehicles. A November 2014 email from VW AG’s Juergen Hintz,
11 entitled “Akustikfunktion,” relayed a telephone call with Bosch’s Kratt about the
12 “akustikfunktion” and Volkswagen’s role. VW AG’s C. Arenz responded that while he had been
13 responsible for the operation of the “akustikfunktion,” Bosch was responsible for its calibration.
14 In fact, Arenz disclosed that he planned to meet with Bosch (along with Michael Brand) about
15 calibrating the “akustikfunktion” the following week.⁴⁷ In another email, Hintz wrote that
16 Bosch’s Kratt told him that Bosch would be making certain changes to the “akustikfunktion”
17 based on Volkswagen’s specifications.⁴⁸

18 93. In sum, Bosch worked hand-in-glove with Volkswagen to develop and maintain
19 the akustikfunktion/defeat device.⁴⁹
20
21
22

23 ⁴⁶ VW-MDL2672-02559526.

24 ⁴⁷ VW-MDL2672-02569895.

25 ⁴⁸ Translation at 00387135.

26 ⁴⁹ From the information available to date, it appears that at least nine individuals from Bosch were
27 involved in the scheme to develop the illegal defeat device: Bucher, Lang, Moeker, and Alvarez
28 (based on a July 2005 email from VW AG’s Specht); Berger (based on a March 2007 email with
VW AG’s Klaproth and Mannigel); Schuetz, Pfeifle, and Richardt (based on a June 2, 2008 letter
attempting to limit Bosch’s liability); and Kratt (recipient of the letter attached to VW AG’s June
6, 2008 response). VW-MDL2672-02570091; VW-MDL2672-02559611; VW-MDL2672-
02559515.

1 2. **Volkswagen and Bosch Conspire to Conceal the Illegal**
2 **“Akustikfunktion”**

3 94. By 2007, and likely earlier, Bosch was critical not only in developing the
4 “akustikfunktion,” but also in concealing it. On March 9, 2007, Bosch’s Guenther Berger
5 emailed VW AG’s Mathias Klaproth (a technical developer) and Mannigel with the subject of
6 “Erweiterungen Akustikfunktion” (in English, “Further Development of the Acoustic
7 Function”).⁵⁰ *Berger confirmed that Bosch would remove the description of the enhanced*
8 *“akustikfunktion” from Volkswagen’s fuel pump specification sheets D2250 and D2278.*
9 Klaproth and Mannigel agreed not to list the function in documentation in the U.S., but disagreed
10 whether to disclose it in Europe. Klaproth then took Berger off the email chain and insisted the
11 “akustikfunktion” would be applied to the European projects, to which Mannigel responded that
12 he would contact Klaproth off-line.

13 95. Bosch was concerned about getting caught participating in the defeat device fraud.
14 As reported in the German newspaper, *Bild am Sonntag*, and a French publication, a Volkswagen
15 internal inquiry found that in 2007 Bosch warned Volkswagen by letter that using the emissions-
16 altering software in production vehicles would constitute an “offense.”^{51,52}

17 96. Bosch expressed similar concerns that use of the defeat device it had created
18 would violate U.S. law. These concerns culminated in a June 2, 2008, letter from Bosch’s Dieter
19 Schuetz to Volkswagen’s Thorsten Schmidt in which Bosch demanded that Volkswagen
20 indemnify Bosch for any liability arising from the creation of a “defeat device,” as Bosch itself
21 called it in English. Through the letter, Bosch sought to clarify the roles and responsibilities of
22 Volkswagen and Bosch regarding the development of the EDC 17, and demanded that
23 Volkswagen indemnify Bosch for any legal exposure arising from work on the defeat device:

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25 ⁵⁰ VW-MDL2672-02559515.

26 ⁵¹ Automotive News (Sept. 27, 2015)
27 (<http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says>); VW Scandal: Company Warned over Test
28 Cheating Years Ago”, *BBC*, Sept. 27, 2015, <http://www.bbc.com/news/business-34373637>.

29 ⁵² <http://www.autonews.com/article/20150927/COPY01/309279989/bosch-warned-vw-about-illegal-software-use-in-diesel-cars-report-says>

1 The further development [of the EDC17] requested by your
2 company will result, in addition to the already existing possibility
3 of activating enriched data manually, *in an additional path for the
potential to reset data to act as a “defeat device.”* We ask you to
have the attached disclaimers executed by your company.⁵³

4 The letter uses the words “defeat device” in English, and further explained that “[t]he usage of a
5 **defeat device is prohibited pursuant to . . . US Law (CARB/EPA)** (see definition footnote
6 2).”⁵⁴

7 97. Bosch’s June 2, 2008 letter also warned Volkswagen that the software
8 modifications Volkswagen requested could allow “the certified dataset [to be] replaced with
9 another, possibly non-certified data set[,]” which could, in turn, cause “the vehicle’s general
10 operating license (registration) [to] become void.”⁵⁵ Creating two data sets on emission
11 compliance was illegal under U.S. law. Bosch knew this, and that is why it requested
12 indemnification from Volkswagen.

13 98. Helmut Pfeifle and Heike Richardt at Bosch signed the proposed indemnification;
14 the signature lines for Volkswagen were left blank. When Volkswagen’s Hermann Middendorf
15 responded to Alfred Kratt at Bosch. He did not deny the existence of a defeat device, but instead
16 attacked Bosch for involving “the lawyers.”

17 99. Discovery is ongoing, and Plaintiffs do not have a full record of what unfolded in
18 response to Bosch’s June 2, 2008 letter. However, it is indisputable that Bosch continued to
19 develop and sell to Volkswagen hundreds of thousands of the defeat devices for U.S. vehicles
20 following Bosch’s express, written recognition that its software was being used in the Class
21 Vehicles as a “defeat device” that was “prohibited pursuant to . . . US Law.”

22 100. VW AG and Bosch continued over the next few years to refine the defeat device.
23 This was a lengthy and complicated process that required concealing its existence from the
24 onboard diagnostic system, which was intended to report emission controls to comply with U.S.,
25 and particularly California’s, requirements. In a July 18, 2011 email, Audi’s Olaf Busse proposed

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27 ⁵³ VW-MDL2672-02570091 (English translation) (emphasis added).

28 ⁵⁴ *Id.* at -92 (emphasis added).

⁵⁵ *Id.* at -93.

1 tying the activation of the “akustikfunktion” more directly to steering angle, instead of vehicle
2 temperature, which was proving to be problematic. This request coincided with inquiries from
3 CARB about on-board diagnostics issues. VW AG’s Hanno Jelden (Head of Powertrain
4 Electronics), worried that the change would be too obvious and could not be explained to
5 regulators.⁵⁶

6 101. Defendant Denner and the other Individual Defendants were also in on the secret.
7 Notes from a May 28, 2014 meeting between Bosch and Volkswagen executives at VW
8 headquarters reflect that the topic of “akustikfunktion” was discussed in the context of
9 Volkswagen’s and Bosch’s partnership in the U.S. market. VW AG’s Friedrich Eichler
10 (Powertrain Development Chief) mentioned the importance of the “akustikfunktion” in Bosch
11 diesel engines. Bosch participants at the meeting included Defendant Denner, as well as Rolf
12 Bulander, Dirk Hoheisel, Markus Heyn, Scheider, Kampmann, Fetzner, Philipp, Hammer, Mader,
13 Hubner, Karakas, Schirm, and Frese. For VW AG, Defendant Winterkorn was also present.⁵⁷

14 **3. Volkswagen and Bosch Conspire in the U.S. and Germany to Elude**
15 **U.S. Regulators**

16 102. The purpose of the defeat device was to evade stringent U.S. emissions standards.
17 Once Bosch and VW perfected the defeat device, therefore, their attention turned to deceiving
18 U.S. regulators.

19 103. Evidence already shows that Bosch GmbH employees expressly conspired with
20 VW to hide the function of the defeat device. Shortly after the March 2007 email exchange
21 detailed above, in which VW AG’s Klaproth and Mannigel confirmed to Bosch GmbH’s Berger
22 that the “akustikfunktion” would not be listed in the U.S. documentation for the Class Vehicles,
23 an internal email from VW AG’s Frank Alich (Development, OBD Diesel) to various individuals
24 at VW AG about scheduling a May 9, 2007 meeting, lamented the trouble distinguishing between
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27 ⁵⁶ VW-MDL2672-0259489. Jelden was subsequently suspended in connection with the
emissions scandal.

28 ⁵⁷ VW-MDL2672-02569909.

1 acoustic and non-acoustic modes relating to soot simulation. Alich complained that he did not
2 know how he would explain the problem to CARB.⁵⁸

3 104. Bosch's North American subsidiary, Defendant Bosch LLC, was also part of and
4 essential to the fraud. Bosch LLC worked closely with Bosch GmbH and Volkswagen, in the
5 United States and in Germany, to ensure that the non-compliant Class Vehicles passed U.S.
6 emission tests. As set forth below, Bosch LLC employees frequently communicated with U.S.
7 regulators, and actively worked to ensure the Class Vehicles were approved by regulators.

8 105. Employees of Bosch LLC and Bosch GmbH provided specific information to U.S.
9 regulators about how Volkswagen's vehicles functioned and unambiguously stated that the
10 vehicles met emissions standards. Bosch LLC regularly communicated to its colleagues and
11 clients in Germany about ways to deflect and diffuse questions from US regulators about the
12 Class Vehicles - particularly CARB. For example, in a May 15, 2008 email from Audi AG's
13 Martin Hierse to Bosch GmbH's Markus Schroeder (Diesel Systems, Engineering Powertrain
14 Diagnosis), copying Audi's Stefan Forthmann, Hierse noted that auxiliary emission control
15 devices ("AECs") were a very important subject for certification of U.S. diesels, and admitted
16 discrepancies with the U.S. authorities in AECD documentation.⁵⁹ The regulators' questions
17 were chipping away at the discrepancies between on board diagnostic systems, and the emission
18 controls.

19 106. Accordingly, Hierse worried that there was a possibility that one of the
20 Volkswagen Group's representatives in the U.S. was providing the regulators too much
21 information and data concerning AECD disclosure. He then asked to discuss the matter with
22 Bosch's Schroeder either by telephone or in private at one of their offices due to the
23 confidentiality of the issue.

24 107. Bosch and VW worked together to craft responses to CARB's questions. For
25 example, an April 2009 email, Suanne Thomas (VW America Regulatory Strategist) and Bosch
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27 ⁵⁸ VW-MDL2672-02555825.

28 ⁵⁹ VW-MDL2672-11873274.

1 LLC's Bernie Carr discussed results from tests sent from an individual at IAV showing defects in
2 the Class Vehicles' in-use ratios and missing readiness information.

3 108. On July 1, 2009, VW America's Thomas emailed colleagues, again raising
4 concerns about documenting AECDs in Model Year 2010-11 Class Vehicles to U.S. authorities.
5 At issue was the "low level of detail in the AECD documents [so that] ARB is not able to confirm
6 which strategies are for component protection." Thomas then relayed that CARB asked whether
7 there was a problem getting Bosch to disclose its strategy.⁶⁰ In a related email, Thomas
8 commented: "I was not involved in the discussions . . . with ARB on diesel, however I get the
9 impression that there is a misunderstanding at VW regarding AECDs. That this
10 misunderstanding is the root of the issue – why ARB is not satisfied with the AECD disclosure
11 for diesels."⁶¹ CARB was asking the right questions, and not getting honest answers.

12 109. Nor can Bosch persuasively distance Bosch GmbH from the communications with
13 regulators, as Bosch GmbH employees directly participated in meetings with CARB. For
14 example, in January, 2015, Bosch GmbH (specifically, Bosch LLC's Adam Wiener, Senior
15 Legal Counsel, Dennis Froehlich, Quality Control, and Axel Boeringer, Sales Quality and
16 Warranty) conferred about setting up a conference call with Audi and CARB to explain problems
17 with the diagnostics relating to faulty fuel pumps, issues that likely arose because the defeat
18 device was causing problems with the on board diagnostic system in certain Class Vehicles.
19 Suanne Thomas of VW coordinated the call between Bosch and CARB.

20 110. Volkswagen and Bosch held CARB and the EPA at bay with finesse (and fraud) to
21 obtain the necessary COCs and EOs to keep Class Vehicles on the road. In an August 2009 email
22 from VW America shared a comment from CARB regarding 2009 Volkswagen Jetta TDIs test
23 results that "VW 'blatantly did the wrong thing'" and asking Volkswagen if this "is a base
24 strategy from Bosch." Volkswagen responded, "yes."⁶²

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26
27 ⁶⁰ VW-MDL2672-02469411.

28 ⁶¹ VW-MDL2672-02120937.

⁶² VW-MDL2672-00912096.

111. This is not the only document crediting Bosch strategies to obtain regulatory approval. A May 17, 2011 email from CARB to Thomas regarding Volkswagen 2014 TDIs referenced a 2010 conference call where they discussed “the bosch ZFC [Zero Fuel Calibration] strategy and a possible fuel rail pressure disablement.” VW AG’s Alich then relayed that “ARB accepted our proposal to implement the ZFC ‘time to closed loop’ monitor with MY [model year] 2013.”⁶³ And in a May 31, 2013 email regarding 2.0-liter Class Vehicles, Thomas referenced a “[p]roposed strategy” to “get the executive order [from CARB] based on the ‘Bosch’ strategy.”⁶⁴ These communications demonstrate Bosch’s deep understanding of what regulators allowed and would not allow, and what Bosch did to help VW obtain approval.

112. In short, there can be no argument that Bosch left communications with the regulators to VW, or that Bosch did not understand the regulatory implications of the defeat device software VW paid Bosch to develop. Employees of Bosch GmbH and Bosch LLC worked together with VW to convince U.S. regulators to approve the Class Vehicles for sale and use in this country. The examples below identify at least six additional instances in which Bosch communicated directly with U.S. regulators to discuss concerns with emissions detection and compliance in the Class Vehicles. During each communication, Bosch LLC provided specific information about how Volkswagen’s vehicles functioned and unambiguously stated that the vehicles met emissions standards:

- a. In December 2009, Bosch presented CARB with a strategy to allow usage of Injection Quantity Adjustment codes in 2013 Volkswagen diesel models.⁶⁵
- b. In or around December 2012, Volkswagen and Bosch submitted separate written responses, including requested documents, to the U.S. National Highway Traffic Safety Administration in response to its investigation into high-pressure fuel pump failures in certain Class Vehicles.⁶⁶
- c. A January 15, 2014 email from CARB to Thomas with the subject, “RE: VW response Re: V6TDI clarifications,”

⁶³ VW-MDL-2672-02464246.

⁶⁴ VW-MDL2672-00530556.

⁶⁵ VW-MDL2672-07235955.

⁶⁶ VW-MDL2672-00762181.

CARB's Peter Ho referenced "previous discussions with Bosch," and inquired about false detections in the field.⁶⁷

- d. July 23, 2014 notes from Volkswagen referenced a phone call between Volkswagen, Bosch, CARB, and other automakers during which Bosch raised the issue of pinpointing of wire faults of NOx and particulate matter sensors with a separate control unit.⁶⁸
- e. A February 9, 2015 email from VW AG's Steffen Vieser relayed an update from Bosch GmbH about a discussion between CARB and Bosch LLC's Wiener re: a "non-erasable permanent fault code issue of the fuel pump electronic driver stage diagnostic," which Volkswagen suggested could be fixed by a "software update" requiring Bosch's assistance, which CARB approved.⁶⁹
- f. Notes from a June 10-11, 2015 meeting between CARB and Volkswagen reference a "Bosch discussion with ARB regarding PM [particulate matter] sensor introduction with Fe-doping." The meeting notes also record that CARB told Volkswagen that CARB did not want the emission monitors in a "contrived condition."⁷⁰

113. Bosch did not disclose its knowledge of the illegal defeat device in any of these meetings or communications with U.S. regulators.

4. Bosch Keeps Volkswagen's Secret Safe and Pushes "Clean" Diesel in the U.S.

114. Bosch not only kept Volkswagen's dirty secret safe, it went a step further and actively lobbied lawmakers to push "Clean Diesel" in the U.S., including making Class Vehicles available for regulators to drive.

115. As early as 2004, Bosch announced a push to convince U.S. automakers that its diesel technology could meet tougher 2007 U.S. emission standards.⁷¹ Its efforts ended up being a multiple-year, multi-million dollar effort, involving key players from both Bosch Germany and Bosch America. Following the launch of its new EDC systems in 2006, Bosch hired mcapitol Managers, a lobbying firm to promote its "Clean Diesel" products on Capitol Hill and with the

⁶⁷ VW-MDL2672-00465156 (emphasis added). These discussions began in 2011.

⁶⁸ VW-MDL2672-00887996.

⁶⁹ VW-MDL2672-00902633; VW-MDL2672-02449923.

⁷⁰ VW-MDL2672-02296983.

⁷¹ Mar. 8, 2004, Edmund Chew, Autonews.

1 EPA. In Washington, DC, mcapital Managers lobbied on Bosch's behalf to defeat a proposal that
2 would have favored hybrid vehicle technology over "Clean Diesel" vehicles.

3 116. Bosch also coordinated studies to advance diesel technology in the U.S. In
4 September 2006, Bosch's Bill Rutecki reached out to Volkswagen and Audi to request their
5 participation in the "Martec Light Duty Diesel Market Opportunity Assessment." The study's
6 goal was to develop coordinated strategies to accelerate advancements of light duty diesel
7 technology in the U.S.⁷²

8 117. Bosch's promotion of diesel technology specifically targeted the U.S. For
9 example, Bosch put on "Diesel Days in California," "Deer Conference: EGT Focus," and "SAE
10 World Congress in Detroit." In 2008, Bosch LLC and VW America co-sponsored the "Future
11 Motion Made in Germany-Second Symposium on Modern Drive Technologies" at the German
12 Embassy in Washington, D.C., with the aim of providing a venue for "stakeholders to gain insight
13 into the latest technology trends and engage in a vital dialogue with industry leaders and
14 policymakers."⁷³

15 118. Bosch LLC hosted multi-day conferences open to many regulators and legislators
16 and held private meetings with regulators, in which it proclaimed extensive knowledge of the
17 specifics of Volkswagen technology, including calibrations necessary for the Class Vehicles to
18 comply with emissions regulations.

19 119. For example, in April 2009, Bosch organized and hosted a two-day "California
20 Diesel Days" event in Sacramento, California. Bosch invited a roster of lawmakers, journalists,
21 executives, regulators, and NGOs with the aim of changing perceptions of diesel from "dirty" to
22 "clean." The event featured Class Vehicles as ambassadors of "Clean Diesel" technology,
23 including a 2009 VW Jetta "green car." The stated goals were to "generat[e] a positive
24 perception of Clean Diesel in passenger vehicles" and to "educate California stakeholders about
25 the immediate benefits [of] Clean Diesel passenger vehicles" in reducing emissions. A key
26

27 ⁷² VW-MDL2672-06136031.

28 ⁷³ VW-MDL2672-00234383.

1 feature of the event included “Bosch Vehicles Being Deployed.”⁷⁴ Attendees included Bernd
2 Boisten (Bosch Regional President, Diesel Systems, Bosch LLC); Dr. Joerg Reuger (Senior Vice
3 President, Diesel Engineering, Bosch Support Staff, Bosch GmbH); Brad Warner (Manager,
4 Marketing, Diesel Systems, Robert Bosch LLC); and Norman Johnson (Director, External
5 Affairs, Robert Bosch LLC).

6 120. In 2009, Bosch also became a founding member of the U.S. Coalition for
7 Advanced Diesel Cars. One of this advocacy group’s purposes included “generating awareness to
8 legislators and regulators on the benefits of “Clean Diesel” technology for passenger cars,
9 through engagement in policy, regulatory and advocacy activities.”

10 121. Another example of Bosch’s U.S. lobbying is the 2009 “California Green
11 Summit.” As part of its “Clean Diesel” partnership with Volkswagen, Bosch deployed two 2009
12 Jetta TDI Volkswagens to attendees with the express purpose of “Influencing California,” and
13 inviting CARB, the Western Automotive Journalist Organization, and many others.

14 122. In September 2009, Bosch held a Diesel Technology Forum in California. Dirk
15 Naber (Diesel Systems/Engineering; Vehicle and Engine Laboratory of Bosch) attended, as did
16 VW’s Stuart Johnson, R. Dorenkamp and G. Pamio, along with Juergen Peter. Following this
17 forum, in October 2009, Mightycomm (Bosch’s California lobbyist) outlined a proposal for
18 “OEM Vehicle Placement Program targeting influential California NGOs and Regulators.”⁷⁵
19 This memo was addressed to Bosch’s Lars Ulrich, Joerg Rueger, and Bosch Diesel Systems.
20 **Mightycomm specifically stated “[v]ehicles placed with CARB would have to be . . . newer**
21 **models that can withstand possible dynamometer testing. While we do not anticipate a vehicle**
22 **placed with CARB would be inspected, examined, or tested on a dynamometer, there is no**
23 **assurance some CARB staff won’t want to do this.”**⁷⁶ On the other hand, Mightycomm advised
24 not to worry about a vehicle being tested by the California Energy Commission (“CEC”) “as the
25 CEC is not equipped to conduct such inspections.”⁷⁷

26 ⁷⁴ *Id.* 115-45; VW-MDL2672-03331605.

27 ⁷⁵ VW-MDL2672-15182932

28 ⁷⁶ *Id.* (emphasis added).

⁷⁷ *Id.*

123. In 2010, Bosch sponsored the Virginia International Raceway with the support of the 2010 Volkswagen Jetta Cup Series. This included the 2009 “Sidewinder” which Bosch featured for its “performance exhaust system.”

124. In its lobbying on behalf of “Clean Diesel,” Bosch had to continually cover up the dirty secret of the defeat device in the Class Vehicles. In a January 13, 2010 memo addressed to Bosch’s Lars Ullrich and Brad Warner, Mightycomm noted that “Clean Diesel has been ranked the green car of the year” two years in a row—2009 and 2010. And yet Bosch knew the Class Vehicles could not obtain the results being advertised without activating the defeat device.

125. Bosch’s Andreas Sambel (Director of Marketing and Business Excellence) presented on “Clean Diesel” technology before the CEC on June 19, 2013, specifically pinpointing “key influencers,” such as specific NGOs that have not traditionally engaged CARB, “who we need to reach, rally and motivate.”⁷⁸

126. In its efforts to promote “Clean Diesel,” including the Class Vehicles, Bosch acted on behalf of its global group. As an example, Bosch put on a two-day presentation on June 27-28, 2007, about meeting the demands of U.S. emission legislation, where it focused on lowering emissions in diesel vehicles. Each of the presentation’s 30 pages bears both the “Bosch” name and “Bosch Engineering GmbH” but makes no mention of Bosch LLC.⁷⁹ The aforementioned memo from Mightycomm was addressed to “Bosch Diesel Systems.” And each page of the presentation for California Diesel Days bears the label “BOSCH” in emboldened red type.⁸⁰ This is consistent with the ongoing representations that the Bosch entities, overseas and in the U.S. were “one-for-all-and-all-for-one” in promoting “Clean Diesel” technology to U.S. stakeholders.

5. Defendant Denner Also Played a Critical Role in the Scheme

127. Prior to becoming CEO in 2012, Denner climbed the corporate ladder in Bosch’s Engine ECU Development division, managing the development and sale of automotive engine computers, such as the EDC units that Volkswagen used as defeat devices. In 2006, Denner

⁷⁸ VW-MDL2672-00885348.

⁷⁹ VW-MDL2672-05676990.

⁸⁰ VW-MDL2672-03331605.

1 joined Bosch Germany's Board of Management and was later responsible for research and
2 advance engineering, product planning, and technology coordination across the company's three
3 business sectors from July 2010 until his appointment as CEO. Denner has agitated for the
4 company to become more like a "start-up,"⁸¹ and to develop a "culture of failure,"⁸² where risk
5 taking is rewarded, in an attempt to replicate the "California venture capitalist model."⁸³ Denner
6 set the tone at the top of Bosch as a member of Bosch's Board of Management and later CEO.
7 He embraced the Silicon Valley culture of moving fast, taking risks, and asking for forgiveness
8 rather than permission.

9 128. As he rose in the ranks, Denner worked to foster Bosch's relationship with key
10 corporate partners, like Volkswagen, which brought in billions of dollars in annual revenues.
11 Denner immersed himself in the day-to-day business of Bosch's important customers. Illustrating
12 how important Volkswagen was to Bosch, Denner communicated directly with Volkswagen's
13 Winterkorn about the companies' relationship and Bosch products sold to Volkswagen. For
14 example, when Bosch ran out of oxygen sensor parts that Volkswagen ordered for its vehicles,
15 Denner reached out directly to Winterkorn. Denner and Winterkorn directly communicated over
16 parts delays and shortages, implying that each was not a manager who governed from afar, but
17 rather was intricately involved in the details of operations.

18 129. In May 28, 2014, Denner participated in a meeting with Defendant Winterkorn and
19 other Bosch and Volkswagen executives at Volkswagen headquarters concerning their
20 partnership in the U.S. market. Among other topics, participants discussed the "akustikfunktion"

22 ⁸¹ See Interview with Bosch Director Volkmar Denner, Jan. 21, 2015, available at
23 [http://www.uni-stuttgart.de/forschung-leben/forschung-](http://www.uni-stuttgart.de/forschung-leben/forschung-persoenlich/persoenlich_artikel0005.en.html)
[persoenlich/persoenlich_artikel0005.en.html](http://www.uni-stuttgart.de/forschung-leben/forschung-persoenlich/persoenlich_artikel0005.en.html).

24 ⁸² See Martin-Werner Budchenau, The Multinational Start-up: The engineering and electronics
25 giant Bosch is putting aside its conservative tendencies and investing in a new innovation unit
26 that it hopes will rival successful start-up incubators, Handelsblatt, Nov. 28, 2014, available at
[https://global.handelsblatt.com/edition/64/ressort/companies-markets/article/the-multinational-](https://global.handelsblatt.com/edition/64/ressort/companies-markets/article/the-multinational-start-up)
[start-up](https://global.handelsblatt.com/edition/64/ressort/companies-markets/article/the-multinational-start-up).

27 ⁸³ See Nick Gibbs, German auto firms try to nurture Silicon Valley boldness, Automotive News,
28 Nov. 22, 2015, available at
[http://www.autonews.com/article/20151122/OEM06/311239956/german-auto-firms-try-to-](http://www.autonews.com/article/20151122/OEM06/311239956/german-auto-firms-try-to-nurture-silicon-valley-boldness)
[nurture-silicon-valley-boldness](http://www.autonews.com/article/20151122/OEM06/311239956/german-auto-firms-try-to-nurture-silicon-valley-boldness)

1 in Volkswagen diesel vehicles.⁸⁴ Thus, Denner and Winterkorn were aware of the illegal use of
2 the defeat devices at least by May 2014.

3 130. In sum, Bosch played a crucial role in the fraudulent enterprise and profited
4 handsomely from it. It is no exaggeration to say that Bosch provided Volkswagen with the most
5 critical elements necessary to create an engine capable of being (fraudulently) represented as
6 achieving the most stringent U.S. emission standards. All of the Bosch content provided to the
7 Volkswagen production line combined—including the ECU, software, fuel system, sensors, and
8 harness—accounted for a sizeable portion of the total material cost of the engines. This is very
9 big business for Bosch.

10 **D. Porsche Knowingly Adopts the Defeat Device in Its 3.0-liter Class Vehicles**

11 131. Porsche also knew that its class vehicles—the Porsche Cayenne Diesel—contained
12 defeat devices that resulted in NO_x and other emissions exceeded the allowable EPA emission
13 standards under normal driving conditions. Indeed, Porsche’s head of development, Hatz, was
14 formerly head of engine development at VW and Audi and, as alleged above, *was one of the*
15 *architects of the defeat device scheme*. Although Porsche would later disclaim any responsibility
16 for the 3.0-liter TDI engine, Porsche was fully aware of the defeat device that the engine utilized,
17 and fully embraced the “Clean Diesel” engine for purposes of marketing its cars to the public.

18 132. At the very least, Porsche learned of the defeat device during the design and
19 manufacture of the Porsche Cayenne Diesel and the installation of its 3.0-liter TDI engine and
20 ECU, which were developed and integrated into the Cayenne with the assistance of Audi and
21 Bosch. When Porsche decided to enter the U.S. market, Porsche representatives worked closely
22 with Audi and Bosch engineers on the development, installation, and integration of the Audi-
23 developed 3.0-liter TDI engine used in the Porsche Cayenne Class Vehicles. During this process,
24 Audi personnel educated Porsche personnel about the defeat device used in the 3.0-liter engine.
25 This included communications between Audi engineers, Porsche’s electronics development chief,
26 and the head of engine development at Volkswagen, Ulrich Hackenberg, that described the EPA
27 requirements and the strategy devised to circumvent those requirements.

28 ⁸⁴ VW-MDL2672-02569909.

133. Furthermore, although the Porsche Cayenne uses a 3.0-liter TDI engine developed by Audi, it is distinct and required its own unique calibrations. Any changes specific to the Cayenne required Porsche to collaborate with Audi and Bosch engineers to ensure that the modifications were advisable given the configuration of the engine software and would not negatively impact overall vehicle performance.

134. Additionally, Porsche was ultimately responsible for obtaining the necessary emissions certification required to market the Porsche Cayenne Diesels in the United States. Porsche was therefore aware of the input values and other engine calibrations required for the Cayenne to undergo the emissions testing necessary to obtain a COC, and it well understood that the Cayenne could maintain comparable levels of power and fuel efficiency during testing and real-world driving conditions while simultaneously generating drastically different emissions results during these two scenarios, only because of the presence of the defeat device in the Cayenne's ECU

E. Volkswagen's "Clean" Diesel Advertising Campaign

135. While secretly using defeat devices to bypass emission testing, Volkswagen publicly declared a landmark victory—touting that it had successfully optimized its engines to maintain legal emissions, while simultaneously enjoying the cost savings and convenience factors of a lean NO_x trap system. Volkswagen claimed it accomplished this by monitoring and adjusting combustion conditions and using a two-stage exhaust gas recirculation system to reduce initial emissions, while neutralizing the remaining ones with a lean NO_x trap to comply with U.S. law.⁸⁵ Volkswagen branded and advertised this purportedly revolutionary technology to American consumers as "Clean Diesel" TDI technology.

136. As we now know, Volkswagen's "clean" diesel campaign was built upon a lie. Indeed, the Class Vehicles were so "dirty" that they could not pass the minimum emission standards in the U.S., and Volkswagen had to lie to the EPA in order to sell them in the U.S. But,

⁸⁵ See Hadler, *et al.*, *Volkswagen's New 2.0l TDI Engine Fulfills the Most Stringent Emission Standards*, Internationales Wiener Motorensymposium 2008; *see also Self Study Program 826803: 2.0 Liter TDI Common Rail BinS ULEV Engine*, Volkswagen of America, Inc. (2008).

of course, Volkswagen marketed and sold these Class Vehicles without ever disclosing to consumers that they were unlawful to sell or drive due to their high levels of NO_x emissions.

1. VW's False and Misleading Advertisements

137. VW's "clean" diesel campaign was its key selling point for consumers increasingly concerned about the environment. Its marketing mission was to "get clean-diesel power the recognition it deserves as a true 'green' technology," thereby growing Volkswagen's market share to match Winterkorn's lofty goals.⁸⁶ The objective was to change the way consumers thought of diesel technology, by replacing the mental image of sulfur emissions amid clouds of thick soot with that of heightened efficiency and reduced CO₂ emissions. In fact, the VW website stated: "This ain't your daddy's diesel. Stinky, smoky, and sluggish. Those old diesel realities no longer apply. Enter TDI 'clean' diesel. Ultra-low-sulfur fuel, direct injection technology, and extreme efficiency. We've ushered in a new era of diesel."⁸⁷

138. Dubbing these diesel engines as "Clean Diesel" was a symptom of the brazen arrogance underlying the fraud. VW's entire marketing campaign, from the branding of the products to the advertisements, focused on convincing consumers that the Class Vehicles were not merely compliant with emission regulations, but that they exceeded them. This deception culminated in a Guinness World Record attempt in a 2013 Volkswagen Passat TDI, which ironically won an award for "lowest fuel consumption—48 U.S. states for a non-hybrid car."⁸⁸

139. VW professed that its diesel-based technology was equal or superior to hybrid and electric options offered by its competitors. As described by Mark Barnes (COO of VW America) when asked, "What is the advantage of a diesel over a hybrid?"

It's a fantastic power train. It gives very good fuel economy. It's also good for the environment because it puts out 25% less greenhouse gas emissions than what a gasoline engine would. And thanks to the uniqueness of the TDI motor, it cuts out the particulate emissions by 90% and the emissions of nitrous oxide are cut by 95%. So, a very very clean running engine. Clean enough to be

⁸⁶ See, e.g., *TDI Clean Diesel*, <http://www.venturavw.com/TDI-clean-diesel.html>.

⁸⁷ *Supra* note 3.

⁸⁸ Nick Palermo, *Volkswagen Passat TDI Sets World Record for Fuel Economy*, Autotrader (July 2013), <http://www.autotrader.com/car-news/volkswagen-passat-tdi-sets-world-record-for-fuel-economy-210689>.

certified in all 50 states. It's just like driving a high-powered gasoline engine so you are not giving up one bit of the driving experience that you'd expect from a regular gasoline engine.⁸⁹

140. Facing skepticism, Barnes had a ready, if imaginative, response to the question, "How do you re-brand something that's dirty like diesel as something that's green?"

The way we've gone about it is through a number of communication pieces. One of them we've used is TDI Truth & Dare. It is a very good website that compares some older diesels versus the current TDI clean diesel. And one of the things we do is we put coffee filters over the exhaust pipes of both cars. We let them run for five minutes and after they are done, we take them off and the older diesel product (not a VW diesel) has a round sooty spot on that coffee filter. Ours is very clean. In fact they actually make coffee out of the filter that was attached to the Volkswagen clean diesel tail pipe and they drink it.⁹⁰

141. VW also advertised that its vehicles performed better on the road than in test conditions, touting in a 2008 press release: "While the Environmental Protection Agency estimates the Jetta TDI at an economical 29 mpg city and 40 mpg highway, Volkswagen went a step further to show real world fuel economy of the Jetta TDI. Leading third-party certifier, AMCI, tested the Jetta TDI and found it performed 24 percent better in real world conditions, achieving 38 mpg in the city and 44 mpg on the highway."⁹¹ This discrepancy between the EPA certified mpg figures (which are reverse calculated based on vehicle performance on a dynamometer) and the real world mpg figures came about because, in real world driving, Volkswagen's defeat device *disabled* the full functioning of the NO_x trap system exhaust gas after treatment control (which needed to burn more fuel to work properly), thereby decreasing vehicle operating costs at the expense of massively increased NO_x emissions.

142. Volkswagen distinguished the TDI "clean" diesel engines from other, "stinky, smoky, sluggish" diesels, proclaiming its "eco-conscious" status and of course failing to disclose

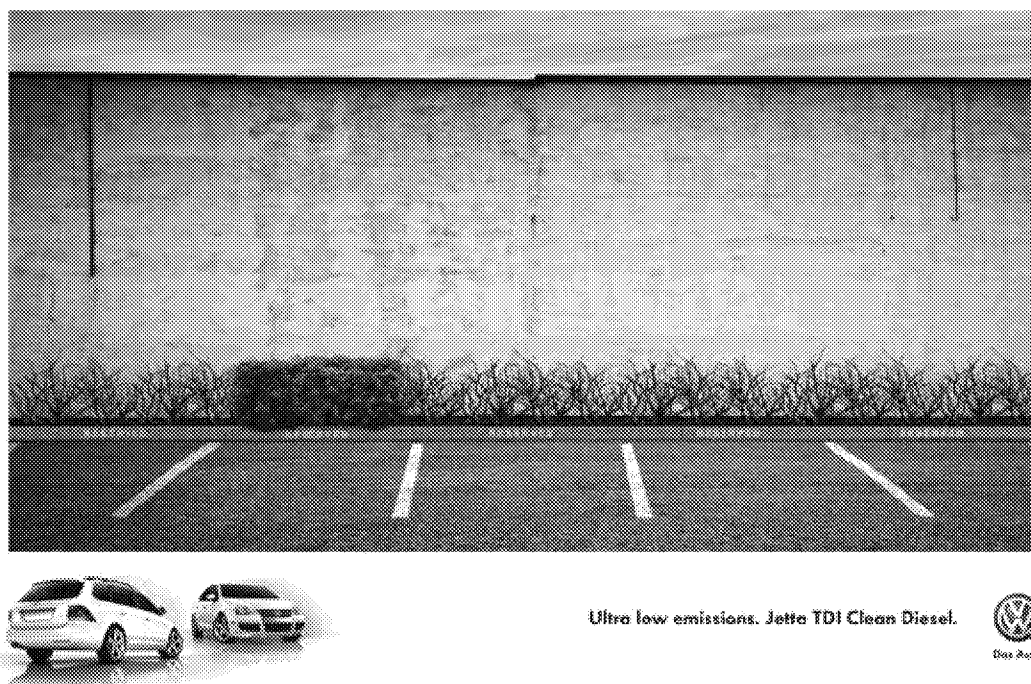
⁸⁹ Gayathri Vaidyanathan, *Volkswagen: Our Diesel Cars Whup The Prius And Other Hybrids*, Business Insider (Oct. 9, 2009), <http://www.businessinsider.com/volkswagen-preps-for-a-diesel-revolution-2009-10>.

⁹⁰ *Id.*

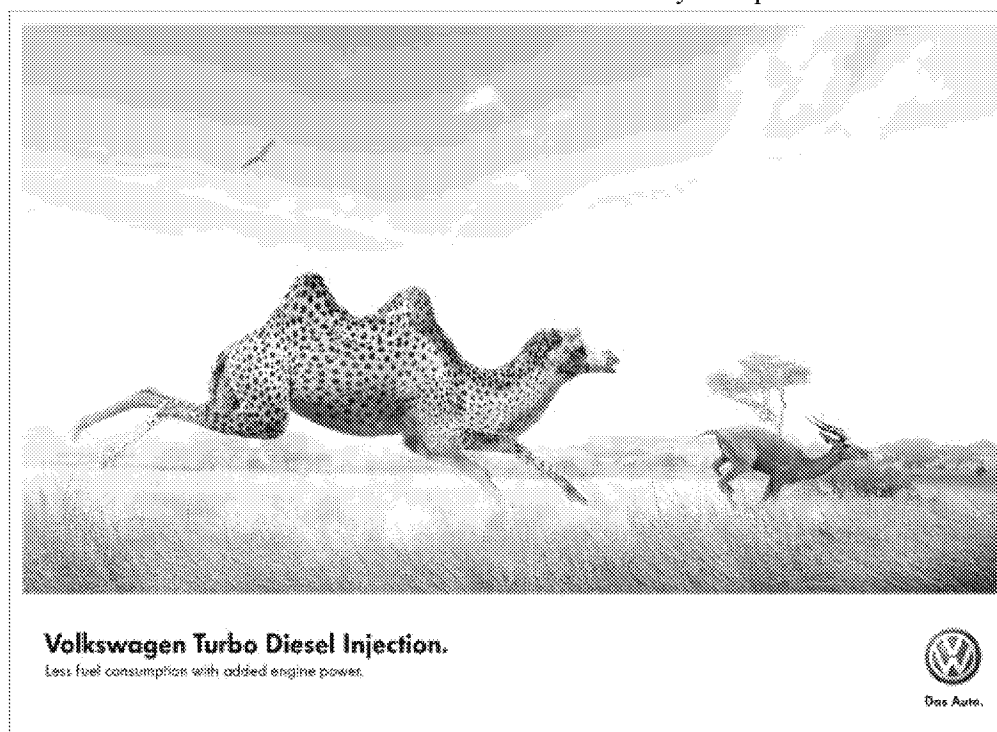
⁹¹ Jake Fisher, *Did Volkswagen Use 'Cheat Mode' as a Selling Point?*, Consumer Reports (Oct. 19, 2015), <http://www.consumerreports.org/volkswagen/did-volkswagen-use-cheat-mode-as-a-selling-point?loginMethod=auto>.

1 that the Class Vehicles were “dirty” themselves. These messages were prevalent in
2 Volkswagen’s extensive marketing campaign.

3 143. Some advertisements, for example, specifically emphasized the low emissions and
4 eco-friendliness of the vehicles:



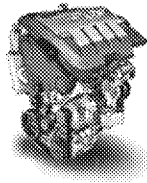
17 144. Others touted the combination of fuel efficiency and power:



A little fuel
goes a long way.



TDI
Clean Diesel



Combining legendary performance and fuel economy, the TDI Clean Diesel is our least thirsty engine yet, delivering up to 1,235 kilometres (highway) per tank on models like the Touareg and Passat.*

Come test drive one today.



Das Auto.

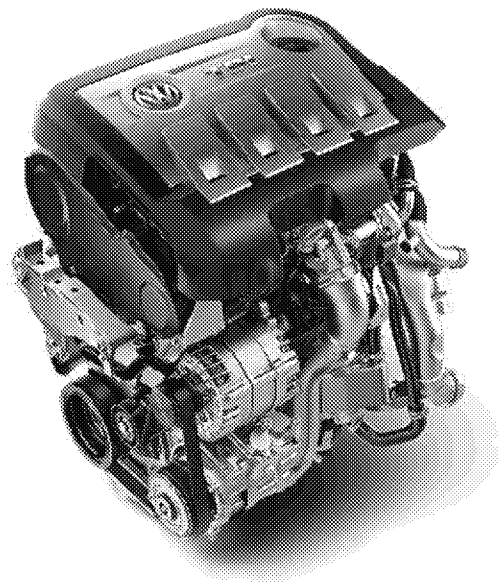
145. Yet others addressed the full package, implying that in contrast to the “stinky, smoky, and sluggish” diesel vehicles of old, Volkswagen’s new diesel vehicles were clean, efficient, and powerful all at once:

This ain’t your daddy’s diesel.

Stinky, smoky, and sluggish. Those old diesel realities no longer apply. Enter TDI Clean Diesel. Ultra-low-sulfur fuel, direct injection technology, and extreme efficiency. We’ve ushered in a new era of diesel.

- Engineered to burn low-sulfur diesel fuel
- “Common Rail” direct injection system

View key fuel efficiency info.



Diesel has really cleaned up its act.

Find out how clean diesel technology impacts fuel efficiency and performance, while also being a more eco-conscious choice.

➔ Go to clearlybetterdiesel.org



146. In addition, VW directed consumers to the www.clearlybetterdiesel.org website, which partnered with affiliates Audi and Porsche, as well as Bosch, Mercedes, and BMW. This website touted the benefits of newly developed diesel technology as “clean” and environmentally friendly. Although it has been scrubbed of all content, the website previously contained false and misleading statements, such as:

A screenshot of a website with a dark background. At the top, there is a circular logo with a leaf-like shape and the text "Clean Diesel". Below the logo, the heading "MORE INFORMATION" is displayed in large, bold, white capital letters. Underneath the heading, there is a paragraph of text in a smaller white font.

Clean Diesel

MORE INFORMATION

The term "Clean Diesel" refers to innovative diesel engine technology, as well as the latest diesel fuel for vehicles. In contrast to traditional diesel, Clean Diesel is superior, since both the new generation of engines and the fuel itself meet the strictest emission regulations in the U.S. (issued by the state of California). Clean Diesel fuel contains less than 15 parts per million of sulphur; our Clean Diesel partner vehicles deliver on average 18% higher fuel efficiency while reducing CO2 emissions when compared to corresponding gas models. Since Clean Diesel is not only cleaner but also more fuel-efficient, the new Clean Diesel vehicles are friendlier to both the environment and drivers' wallets throughout the U.S.

147. The website also offered a graphic slider, specifically representing that “clean” diesel produced less emissions and dramatically reduced smog, as shown by the following:



148. This website may have accurately portrayed the environmental advantages of BMW diesel vehicles, which have not been implicated in the defeat device scandals, to date. However, Volkswagen's partnership with "www.clearlybetterdiesel.org" falsely or misleadingly portrayed the Class Vehicles as an environmentally friendly, low emissions choice for discerning and socially responsible consumers.

149. VW also produced a series of TV advertisements for the U.S. market, intended to debunk myths about diesel engines. One ad, titled "Three Old Wives Talk Dirty," featured three elderly women debating whether diesels, though "beautiful," are dirty vehicles:



1 150. To ostensibly debunk the “Old Wives’ Tale” that diesel produced dirty exhaust
2 and hazardous emissions, one of the women held her white scarf to the exhaust to convince the
3 passengers that the exhaust was environmentally friendly, and not, in fact, dirty:



14 151. She removed the scarf, gestured at it, and asked her friends “see how clean it is?”



1 152. Like others in VW's "clean" diesel campaign, this ad falsely or misleadingly
2 portrayed the exhaust emissions from the Class Vehicles as clean and safe. In reality, the Class
3 Vehicles actually emitted invisible and extremely hazardous levels of NO_x.

4 153. These themes extended to print brochures at dealerships and to VW's website.
5 The brochures emphasized that VW's "clean" diesel was "clean," "green," and low emission. For
6 example, a "2012 Volkswagen Family" brochure for all VW models, states:

7 Let TDI "clean" diesel set you free from the filling station. Our TDI
8 engines achieve astonishing mileage and range—up to 43 highway
9 mpg and 795 miles on a single tank without sacrificing one bit of
10 turbocharged performance. *That's all thanks to the TDI*
11 *technology that uses a direct injection system and runs on ultra-*
12 *low-sulfur diesel, helping reduce sooty emissions by up to 90%*
compared to previous diesel engines. On most models, you can
even choose the available DSG automatic transmission with
Tiptronic to take that turbo engine to a whole new level.⁹²
(Emphasis added.)

13 154. Similarly, a "2013 Volkswagen Family" brochure, applicable to all models, states:

14 When you've had your fill of filling stations, hit the road in your
15 TDI "clean" diesel Volkswagen. These engines achieve astonishing
16 mileage and range—up to 43 highway mpg and 795 miles on a single
17 tank without sacrificing one bit of turbocharged performance.
18 *That's all thanks to the TDI technology that uses a direct*
injection system, and runs on ultra-low-sulfur diesel, helping
reduce emissions by up to 90% compared to previous diesels. Far
and away, it's our best diesel yet.⁹³ (Emphasis added.)

19 155. And a 2012 "Volkswagen TDI "clean" diesel" brochure for the six models of
20 Volkswagen TDIs then on the market (Jetta, Jetta SportWagen, Golf, Passat, Beetle, and Touareg)
21 states:

22 **These are not the kind of diesel engines that you find spewing**
23 **sooty exhaust like an old 18-wheeler.** Clean diesel vehicles meet
24 the strictest EPA standards in the U.S. Plus, TDI technology helps
reduce sooty emissions by up to 90%, giving you a fuel-efficient
and eco-conscious vehicle.

25 . . .

26 ⁹² Brochure: 2012 Volkswagen Family,
27 <http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2012-family.pdf>.

28 ⁹³ Brochure: 2013 Volkswagen Family,
<http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2013-volkswagenfamily.pdf>.

Think beyond green. TDI represents one part of the Volkswagen Think Blue initiative, our goal of creating and encouraging eco-conscious products and behaviors. Join us in being more responsible on the road and on the planet.⁹⁴

156. Further, a Volkswagen 2010 TDI Jetta and Jetta SportWagen brochure states:

The 2.0L TDI® “clean” diesel engine gives you 140hp and 236 lbs-ft of torque. This engine is the toast of Europe for its quickness, low emissions, and fuel efficiency—a staggering 38 city/44 highway mpg (automatic) based on real-world AMCI-certified testing (30 city/42 highway mpg. EPA estimates).

• • •

Jetta TDI “clean” diesel offers fuel efficiency, power, performance, and a \$1,300 tax credit from Uncle Sam because it qualifies as an Advanced Lean Burn Credit. *Or, in other words, lean, mean, cleaner burning machines. Volkswagen believes in delivering a no-compromise German-tuned auto that performs, and still leaves a small carbon footprint. The Volkswagen TDI engine is cleaner than conventional diesels, emitting as much as 95% less soot than previous diesel engines, as well as a reduction in oxides of nitrogen and sulfur.* It’s powerful, with the kind of low-end torque that racers and tuners demand. It’s efficient, using a turbocharger and smart exhaust design to burn fuel more effectively. So much so, in fact, that Volkswagen was the first automaker to make clean diesel cars certified in all 50 states. And best of all, it will help save you money with an out-of-this-world AMCI-estimated mileage of 38 city/44 highway mpg (automatic) and over 594 miles on a single tank of fuel.

There's even a Jetta SportWagen TDI "clean" diesel, with the same astonishing clean diesel technology, plus a whopping 66.9 cubic feet of cargo room.⁹⁵ (Emphasis added.)

157. And a Volkswagen 2011 Golf TDI brochure states:

Regardless of which Golf model you get, you'll be seeing a lot fewer gas stations and a lot more road. The 2.5L Golf comes standard with a 170-hp, in-line five-cylinder engine with 177 lbs/ft torque and impressive fuel efficiency rated at 23 city/30 highway mpg. Opt for the Golf TDI model and you'll enjoy a turbocharged clean diesel engine with 140 hp and 236 lbs/ft of torque that will run you even farther at a whopping 30 city/42 highway mpg. That's up to 609 miles per tank. *And you'll do it all with 95 percent fewer sooty emissions than diesel engines of old, making it cleaner for*

⁹⁴ Brochure: 2012 Volkswagen TDI[®] Clean Diesel,
<http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2012-family.pdf>.

⁹⁵ Brochure: 2010 Volkswagen Jetta and Jetta SportWagen, <http://www.slideshare.net/SteveWhiteVW/2010-volkswagen-jetta-brochure-greenville>.

1 *both you and the planet.* So whether you're in the market for
2 IntelliChoice's 2010 "Best Overall Value Compact Car over
3 \$17,000," or you want to go for a variation on that theme and get
4 the ever-popular TDI model, you can't go wrong. In fact, you can
5 go very right for a long, long time."⁹⁶

6 158. A Volkswagen 2012 Passat TDI brochure states:

7 Let the Passat TDI "clean" diesel set you free from the filling
8 station. It achieves an astonishing 43 highway mpg and travels 795
9 miles on a single tank without sacrificing one bit of turbocharged
10 performance. *That's all thanks to its TDI technology that uses a*
11 *direct injection system and runs on ultra-low-sulfur diesel,*
12 *helping reduce sooty emissions by up to 90% compared to*
13 *previous diesel engines.* You can even choose the available DSG
14 automatic transmission with Tiptronic to take that turbo engine to a
15 whole new level.

16 . . .

17 The TDI "clean" diesel engine was designed and engineered around
18 one simple belief: driving is more fun than refueling. *So besides the*
19 *reduced emissions and torque-filled benefits you experience*
20 *behind the wheel of the Passat TDI, it also saves you money at the*
21 *pump.*⁹⁷ (Emphasis added.)

22 159. A Volkswagen 2013 Beetle TDI brochure states:

23 Start the TDI® "clean" diesel model and hear the surprisingly quiet
24 purr of *the first clean diesel Beetle*, designed for both power and
25 efficiency.⁹⁸ (Emphasis added.)

26 160. A Volkswagen 2014 Beetle TDI brochure states:

27 2.0L TDI "clean" diesel engine. Engineered with the idea that less
28 is more. The Beetle TDI has lower CO₂ emissions compared to
84% of other vehicles. *So every getaway you make will be a*
*cleaner one.*⁹⁹ (Emphasis added.)

1 161. A Volkswagen 2014 TDI Touareg brochure states:

2 3.0L TDI "clean" diesel engine. Engineered with the idea that less
3 is more. The Touareg TDI has lower CO₂ emissions compared to
4 88% of other vehicles. *So every getaway you make will be a clean*
*one.*¹⁰⁰ (Emphasis added.)

5 ⁹⁶ Brochure: 2011 Volkswagen Golf,
6 <http://cdn.dealereprocess.com/cdn/brochures/volkswagen/2011-golf.pdf>.

7 ⁹⁷ Brochure: 2012 Volkswagen Passat, <https://static.beepi.com/Brochures/17001.pdf>.

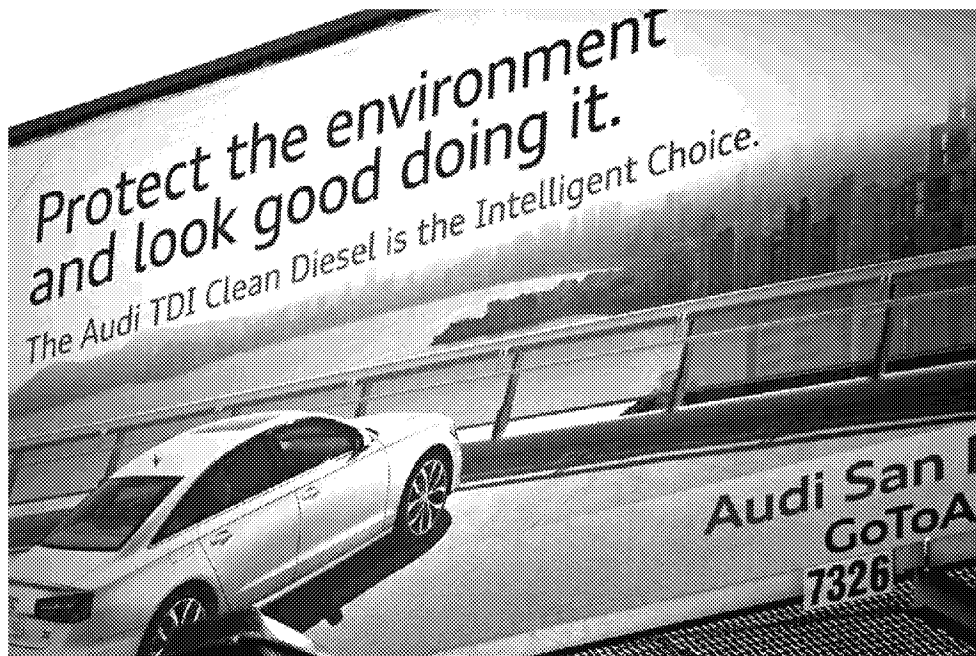
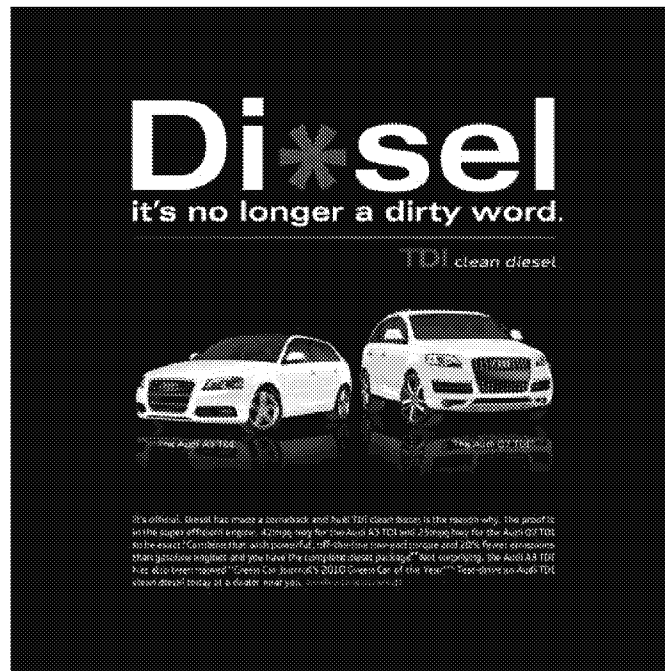
8 ⁹⁸ Brochure: 2013 Volkswagen Beetle, <https://static.beepi.com/Brochures/22980.pdf>.

9 ⁹⁹ Brochure: 2014 Volkswagen Beetle, <https://static.beepi.com/Brochures/23900.pdf>.

10 ¹⁰⁰ Brochure: 2014 Volkswagen Touareg, <https://static.beepi.com/Brochures/18663.pdf>.

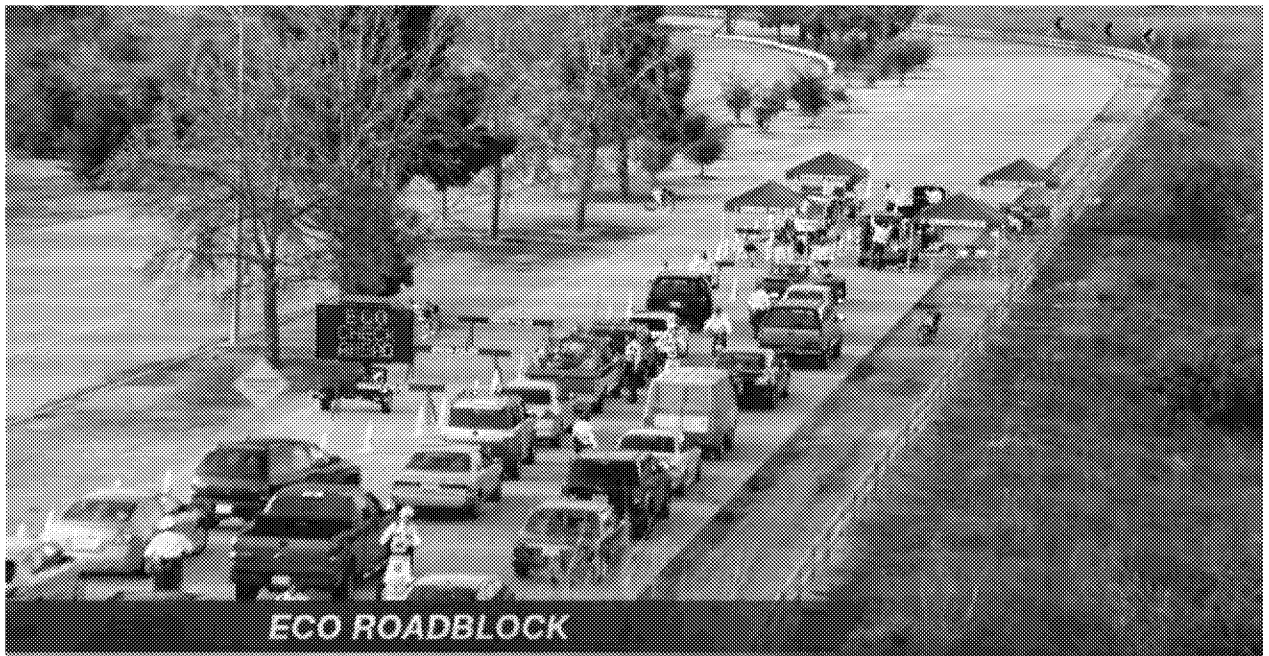
2. Audi's False and Misleading Advertisements

162. Audi, like VW, pitched its 2.0-liter and 3.0-liter diesel engines as environmentally friendly, powerful, and efficient. Drawing heavily from the themes in VW's advertisements, Audi deceptively portrayed its Class Vehicles as clean and safe for the environment, unlike the diesels of yesteryear. Examples of such advertisements include:



1 163. Audi proclaimed that “[d]iesel [was] no longer a dirty word,” but failed to disclose
2 that its vehicles were so dirty that they could not pass emission standards in the U.S. and that the
3 only reason why they were introduced into the stream of commerce here is because Audi
4 fraudulently obtained COCs from the EPA for these vehicles. With equal audacity, Audi
5 advertised that, by driving an Audi TDI, you could “[p]rotect the environment and look good
6 doing it,” while failing to disclose the pernicious NO_x spewed into the environment.

7 164. Audi also ran numerous TV commercials for its “clean” diesel vehicles, many of
8 which touted the “eco-friendly” characteristics of its diesel technology. One ad, “The Green
9 Police” (which aired during the 2010 Super Bowl) portrayed a world in which the environmental
10 police (“Green Police”) arrested people for using Styrofoam cups, failing to compost, asking for
11 plastic bags at the grocery store, throwing out batteries, and drinking water from plastic bottles.
12 And at a highway checkpoint, the “ECO ROADBLOCK,” the Green Police flagged cars that were
13 harmful to the environment:



25 165. When the Green Police at the ECO ROADBLOCK see an Audi A3 TDI
26 SportWagen, they give the car a “thumbs up” and allow the driver to bypass the roadblock.



166. After the white A3 TDI cruises past the other vehicles, the screen fades to black and falsely touts the supposed “green credentials” of the A3 TDI.

167. Like VW, Audi also made false representations in print brochures available at dealerships and on Audi’s website. For example, an Audi 2011 A3 TDI brochure states:

With the potent combination of direct diesel injection and turbocharging, the 2.0-liter TDI® clean diesel engine delivers an impressive 236 lb-ft. of torque and produces 140hp. The power and performance is complemented with impressive EPA-estimated 30 MPG city and 42 MPG highway ratings. ***Producing 30 percent fewer CO₂ emissions than a comparable gasoline engine, the 2.0 TDI clean diesel also meets or exceeds the 50 state emissions requirements.***

...

Long gone are the days of dirty, smoking diesel engines. Audi TDI clean diesel technology is responsible for the cleanest diesel engines in the world, with 30 percent fewer CO₂ emissions than comparable gasoline engines, making it an environmentally friendly alternative to gasoline power. In fact, TDI clean diesel is compliant with California’s ULEV II requirement—the world’s most stringent emission standard. The result is a significant reduction in emissions that contribute to global warming.¹⁰¹
(Emphasis added.)

¹⁰¹ Brochure: 2011 Audi A3, <http://www.slideshare.net/MichiganCarSales/2011-audi-a3-detroit-mi-fred-lavery-company>.

1 168. Audi's 2016 A6 and A7 brochures similarly (and falsely) stated that the 3.0-liter
2 TDI versions of these cars meet emission rating "ULEV II," and the 2016 A6, A7, and Q5
3 brochures all similarly stated:

4 Taking advantage of the greater power density of diesel fuel over
5 traditional gasoline, the available 240-hp 3.0-liter TDI® clean
6 diesel V6 delivers incredible torque (428 lb-ft) and passing power,
7 while boasting impressive fuel efficiency numbers. ***It also produces
fewer emissions with a combination of Piezo direct injection, a
high compression ratio, and innovative after-exhaust treatment
that helps eliminate up to 95% of diesel NOx emissions.***¹⁰²
8 (Emphasis added.)

9 169. An Audi 2016 A8 brochure also listed the TDI models as meeting emission rating
10 "ULEV II," and further stated:

11 With 240 hp and 428 lb-ft of torque on tap, the available 3.0-liter
12 TDI® clean diesel engine's elasticity in the passing lane is almost
13 as impressive as its ability to take on even the longest road trips.
14 ***And with features like AdBlue® exhaust after-treatment helping
to make every journey a little cleaner, this is a performance win
for all sides.***¹⁰³ (Emphasis added.)

15 170. Contrary to these advertisements, Audi employees knew the Class Vehicles' real
16 world NO_x and other emissions exceeded the allowable EPA emission standards.

17 **3. Porsche's False and Misleading Advertisements**

18 171. Porsche similarly exploited the "clean" diesel branding for the 3.0-liter TDI engine
19 used in its Cayenne SUV to falsely convey that the vehicle was environmentally friendly and
20 legal to drive. The "clean" diesel marketing and advertising for the Cayenne SUV also omitted
21 the material fact that the COC issued by the EPA for the vehicle in response to Porsche's
22 submission was based on a fundamental lie. Those ads were unfair, deceptive, false, and
23 misleading for the same reasons, as stated above.

24
25
26 ¹⁰² Brochures 2016 Audi A6, <https://www.audiusa.com/content/dam/audiusa/Documents/2016-Audi-A6-brochure.pdf.pdf>, and 2016 Audi A7,
27 <https://www.audiusa.com/content/dam/audiusa/Documents/2016-Audi-A7-brochure.pdf>.

28 ¹⁰³ Brochure: 2016 Audi A8, <http://pa.motorwebs.com/audi/brochure/a8.pdf>.

172. For example, Porsche expressly marketed the fuel-efficiency of the Cayenne Diesel, even though such efficiency could not be achieved while complying with applicable emission regulations.



173. Moreover, the brochure for Porsche’s diesel-powered 2013 Cayenne SUV, available online and at dealerships, touted the vehicle’s “Intelligent Performance and efficiency—the core characteristics of Porsche engineering.”¹⁰⁴ It boasted that “[t]his is no ordinary diesel. This is a Porsche 3.0-liter V6 turbo diesel engine. It’s a technological marvel, able to take its unique fuel source and transform it into clean, efficient, and incredibly torque-rich power.” Further, the brochure exclaimed Porsche “refined” diesel engine technology, which made its diesel engine “far advanced from what many people perceive—especially in terms of its acceleration, clean emissions, and quiet running operation.”¹⁰⁵ The brochure even touted its “low emissions” on a page entitled: “A cleaner diesel. Exhaust technologies.”¹⁰⁶ Porsche described the exhaust system and stated that its exhaust technologies “help to ensure the reduction of harmful pollutants into the environment and make the Cayenne diesel compliant with U.S. emission

¹⁰⁴ Brochure: 2012 Cayenne Diesel, <https://static.beepi.com/Brochures/17053.pdf>.

¹⁰⁵ *Id.*

¹⁰⁶ *Id.*

standards.”¹⁰⁷ Unfortunately, for thousands of American consumers, these statements were all false.

4. **Volkswagen’s Nationwide Advertising Campaign Was Highly Effective, and Volkswagen Profited Handsomely from Selling the Class Vehicles**

174. Volkswagen’s massive advertising campaign for the Class Vehicles proved highly successful, as Volkswagen took a commanding lead in U.S. diesel vehicle sales. Volkswagen’s diesel vehicles were profiled on environmental websites and blogs as the responsible choice, relying on Volkswagen’s representations of high mileage and low emissions.¹⁰⁸

175. And the success of Volkswagen’s advertising campaign resulted in skyrocketing sales. In 2007, VW America sold 230,572 cars in the United States—a far cry from Winterkorn’s goal of 800,000 sales in 2018—and a negligible number of those were diesel vehicles. In fact, in 2007 only approximately 16,700 light-duty diesel vehicles were sold in the United States.¹⁰⁹ As Volkswagen released its “clean” diesel lineup and fraudulent advertising campaign, sales of the Class Vehicles grew dramatically, from 43,869 in 2009 to a peak of 111,285 in 2013.¹¹⁰ This largely accounted for VW America’s sales growth to over 400,000 sales in 2013, nearly double the sales in 2007.¹¹¹ Likewise, the Class Vehicles contributed significantly to Audi’s growth from 93,506 sales in 2007 to 182,011 in 2014.¹¹² According to the U.S. government, approximately 80,000 of the illegal vehicles sold by VW, Audi and Porsche in the United States had 3.0-liter TDI diesel engines.

¹⁰⁷ *Id.*

¹⁰⁸ See, e.g., Jim Motavalli, *Clean diesel: What you need to know*, Mother Nature Network (Apr. 5, 2013), <http://www.mnn.com/green-tech/transportation/blogs/clean-diesel-what-you-need-to-know>; Anthony Ingram, *2015 VW Golf, Beetle, Passat, Jetta All Get New Clean Diesel Engine*, Green Car Reports (Mar. 19, 2014), http://www.greencarreports.com/news/1090957_2015-vw-golf-beetle-passat-jetta-all-get-new-clean-diesel-engine (last visited on Sept. 28, 2015).

¹⁰⁹ Paul Eisenstein, *Volkswagen Scandal Delivers ‘Black Eye’ to Diesel Tech as a Whole*, NBC News (Sept. 24, 2015), <http://www.nbcnews.com/business/autos/volkswagen-scandal-delivers-black-eye-diesel-tech-whole-n433016>.

¹¹⁰ *Supra* note 7.

¹¹¹ *Volkswagen Reports December 2013 and Year-End Results*, Volkswagen (Jan. 3, 2014), <http://media.vw.com/release/592/>.

¹¹² *Audi achieves fifth straight year of U.S. record sales with 182,011 vehicles in 2014*, Audi USA (Jan. 5, 2015), <https://www.audiusa.com/newsroom/news/press-releases/2015/01/audi-achieves-fifth-straight-year-of-us-record-sales-with-182011-vehicles-in-2014>.

176. Volkswagen reaped considerable benefit from their fraud, charging premiums of thousands of dollars for the “clean” diesel models of the Class Vehicles.

177. Volkswagen also engaged in an aggressive lobbying campaign for federal tax credits for the Class Vehicles, akin to the credits offered for electric cars.¹¹³ These efforts were met with some success, as many of the Class Vehicles were deemed eligible for federal income tax credits in order to spur “clean” diesel technology. In fact, at least \$78 million was earmarked for TDI Jetta buyers in 2009 and 2010.¹¹⁴

F. Defendants’ Dirty Diesel Scheme Starts to Unravel

178. Defendants’ illegal scheme started to unravel approximately five years after Volkswagen introduced its first diesel model containing the defeat device into the U.S. stream of commerce. In May 2014, West Virginia University’s Center for Alternative Fuels, Engines & Emissions published results of a study commissioned by the International Council on Clean Transportation (“ICCT”), which found that certain of the Class Vehicles’ real world NO_x and other emissions exceeded the allowable EPA emission standards.¹¹⁵

179. The ICCT researchers had been comparing the real-world performance of “clean” diesel vehicles in Europe with reported results and noted numerous discrepancies. Since the U.S. emission regulations were significantly more stringent than its European counterparts, the ICCT sought to test the equivalent U.S. “clean” diesel cars, presuming that they would run cleaner. West Virginia University’s team of emissions researchers was a qualified and enthusiastic partner, as they had already been engaged in the study of heavy truck emissions.

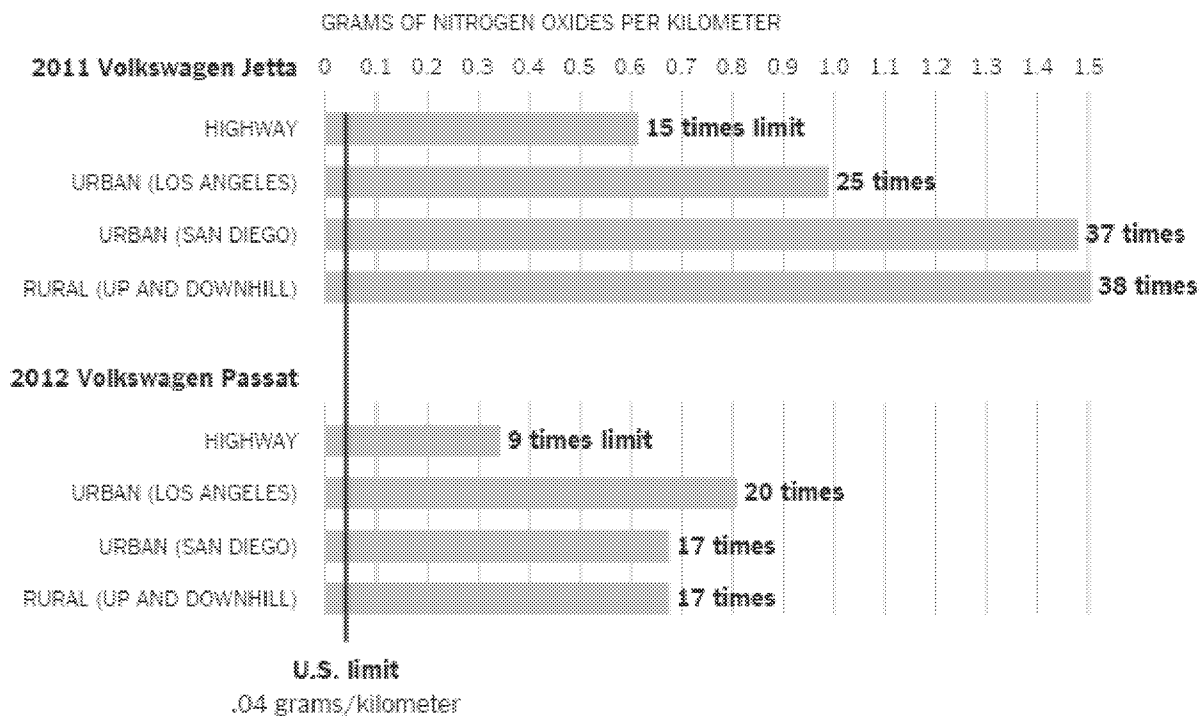
¹¹³ Steve Birr, *Volkswagen Lobbied Obama Administration For Green Tax Credits*, The Daily Caller (Oct. 13, 2015), <http://dailycaller.com/2015/10/13/volkswagen-lobbied-obama-administration-for-green-tax-credits/>.

¹¹⁴ *Volkswagen shares plunge on emissions scandal; U.S. widens probe*, Reuters (Sept. 21, 2015), <https://finance.yahoo.com/news/volkswagen-shares-plunge-most-six-071319964.html>.

¹¹⁵ See *Final Report: In Use Emissions Testing of Light-Duty Diesel Vehicles in the United States*, International Council on Clean Transportation (May 15, 2015), http://www.theicct.org/sites/default/files/publications/WVU_LDDVin-use_ICCT_Report_Final_may2014.pdf.

180. Shockingly, the study showed that, contrary to testing lab results, real world driving of Volkswagen “clean” diesel vehicles produced levels of NO_x up to 40 times higher than legal limits promulgated by the EPA and CARB:

Average emissions of nitrogen oxides in on-road testing



Source: Arvind Thiruvengadam, Center for Alternative Fuels, Engines and Emissions at West Virginia University

181. The results of this study prompted an immediate investigation by the EPA and CARB, both of whom demanded an explanation from Volkswagen. Despite knowing that the Class Vehicles contained illegal emission systems—and defeat devices intentionally designed to comply with emission standards on a test bench but not under normal driving operation and use—Volkswagen failed to come clean. Instead, Volkswagen denied the allegations and blamed faulty testing procedures.

182. Audi conducted internal testing on the 3.0-Liter TDI engine starting in Fall 2014, and found driving emissions of NO_x that greatly exceeded U.S. standards. Volkswagen officials conveyed this information to CARB, but without disclosing the true source and nature of the problem.

1 183. In December 2014, Volkswagen issued a recall purportedly to update emission
2 control software in the Class Vehicles, and CARB (along with the EPA) conducted follow-up
3 testing of the Class Vehicles in the laboratory and during normal road operation. CARB
4 attempted to identify the source and nature of the Class Vehicles' poor performance and
5 determine why their on-board diagnostic systems did not detect the increased emissions. None of
6 the technical issues suggested by Volkswagen adequately explained the NO_x test results as
7 confirmed by CARB.

8 184. Dissatisfied with Volkswagen's explanations, EPA and CARB officials finally
9 threatened to withhold the COCs for Volkswagen's 2016 diesel vehicles until it adequately
10 explained the anomaly of the higher emissions. Then, and only then, did Volkswagen finally
11 relent and start to lift the curtain on its illegal scheme.

12 **G. Once Caught, Volkswagen Admits its Fraud—in Part**

13 185. On September 3, 2015, Volkswagen officials finally disclosed in writing and at a
14 meeting with the EPA and CARB that it had installed a sophisticated software algorithm on the
15 2.0-liter Class Vehicles, which could detect when the car was undergoing emission testing on a
16 test bench and switch the car into a cleaner running mode. During that meeting, Volkswagen
17 admitted that the software was a "defeat device" forbidden by the CAA and state regulations.

18 186. On September 18, 2015, the EPA issued a Notice of Violation of the CAA (the
19 "First NOV") to VW AG, Audi AG, and VW America for installing illegal defeat devices in
20 2009-2015 Volkswagen and Audi diesel cars equipped with 2.0-liter diesel engines. That same
21 day, CARB sent a letter to VW AG, Audi AG, and VW America, advising that it had initiated an
22 enforcement investigation of Volkswagen pertaining to the vehicles at issue in the First NOV.

23 187. Two days later, Volkswagen made its first public admission of wrongdoing in a
24 written statement and video by VW AG's then-CEO Winterkorn (who would soon resign as a
25 result of this scandal), posted on VW AG's website. Winterkorn's statement read, in pertinent
26 part:

27 I personally am deeply sorry that we have broken the trust of our
28 customers and the public. We will cooperate fully with the
 responsible agencies, with transparency and urgency, to clearly,

1 openly, and completely establish all of the facts of this case.
2 Volkswagen has ordered an external investigation of this matter. . . .
3 We do not and will not tolerate violation of any kind of our internal
4 rules or of the law.¹¹⁶

5 In his video, Winterkorn further apologized by stating:

6 The irregularities in our group's diesel engines go against
7 everything Volkswagen stands for. To be frank with you,
8 manipulation at Volkswagen must never happen again. . . . I
9 personally am deeply sorry that we have broken the trust of our
10 customers. I would like to make a formal apology to our customers
11 to the authorities and to the general public for this misconduct.¹¹⁷

12 188. That same day, Volkswagen confirmed that it had ordered dealers to stop selling
13 both new and used vehicles with 2.0-liter diesel engines.¹¹⁸ Volkswagen continued to sell its 3.0-
14 liter diesel models, despite containing similar, but not-yet-disclosed defeat devices.

15 189. On September 21, 2015, Volkswagen spokesman John Schilling stated in an email
16 that Volkswagen was "committed to fixing this issue as soon as possible" and to "developing a
17 remedy that meets emissions standards and satisfies our loyal and valued customers."¹¹⁹

18 190. Defendant Horn, President and CEO of VW America, echoed this sentiment when
19 he took the stage later that evening at a launch event for the 2016 Volkswagen Passat in
20 Brooklyn, New York, telling reporters:

21 Our company was dishonest, with the EPA and the California Air
22 Resources Board, and with all of you and in my German words, ***we***
23 ***have totally screwed up***. We have to make things right, with the
24 government, the public, our customers, our employees and also
25 very important, our dealers.¹²⁰ (Emphasis added.)

26 ¹¹⁶ See Statement of Prof. Dr. Martin Winterkorn, CEO of Volkswagen AG, Volkswagen AG
27 (Sept. 20, 2012), http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/09/statement_ceo_of_volkswagen_ag.html.

28 ¹¹⁷ See Joe Lorio, *VW Chairman Martin Winterkorn Releases Video Addressing Scandal, Is Not Stepping Down*, Car and Driver (Sept. 22, 2015), <http://blog.caranddriver.com/vw-chairman-martin-winterkorn-releases-video-addressing-scandal-is-not-stepping-down/>.

¹¹⁸ Jack Ewing, *Volkswagen to Stop Sales of Diesel Cars Involved in Recall*, N.Y. Times (Sept. 20, 2015), <http://www.nytimes.com/2015/09/21/business/international/volkswagen-chief-apologizes-for-breach-of-trust-after-recall.html>.

¹¹⁹ Jad Mouadwad, *et al.*, *The Wrath of Volkswagen's Drivers*, N.Y. Times (Sept. 21, 2015), <http://www.nytimes.com/2015/09/22/business/the-wrath-of-volkswagens-drivers.html>.

¹²⁰ Christine Seib, *Volkswagen's US Boss: We Totally Screwed Up*, CNBC (Sept. 22, 2015), <http://www.cnbc.com/2015/09/21/volkswagen-us-ceo-screwed-up-on-eca-emissions-diesel-test->

Footnote continued on next page

1 Defendant Horn's presentation on the new Passat, notably, did not promote the environmental
2 efficiency of the car's "clean" diesel model.

3 191. On September 22, 2015, Volkswagen announced that 11 million diesel cars
4 worldwide were installed with the same defeat device software that had evaded emission testing
5 by U.S. regulators. Contemporaneously, Volkswagen announced that it had set aside reserves of
6 6.5 billion euros (\$7.3 billion) in the third quarter to address the matter.¹²¹

7 192. On September 23, 2015, Winterkorn resigned from his position as CEO of VW
8 AG. In his resignation statement, Winterkorn insisted that he was not personally involved in the
9 emissions scandal: "Above all, I am stunned that misconduct on such a scale was possible in the
10 Volkswagen Group. I am doing this in the interests of the company even though I am not aware
11 of any wrongdoing on my part."¹²²

12 193. Following Winterkorn's resignation, Volkswagen released a statement that it had
13 set up a special committee to lead its own inquiry into the scandal and expected "further
14 personnel consequences in the next days." It added: "The internal group investigations are
15 continuing at a high tempo. All participants in these proceedings that have resulted in
16 immeasurable harm for Volkswagen will be subject to the full consequences." However, the
17 committee insisted that Winterkorn "had no knowledge of the manipulation of emissions data."¹²³

18 194. On September 25, 2015, Matthias Müller, the Chairman of Porsche AG, was
19 named as Winterkorn's successor. Immediately upon assuming his new role, Müller issued a
20 press release stating:

21 My most urgent task is to win back trust for the Volkswagen
22 Group—by leaving no stone unturned and with maximum
23 transparency, as well as drawing the right conclusions from the
current situation. Under my leadership, Volkswagen will do

24 *Footnote continued from previous page*
rigging.html.

25 ¹²¹ Nathan Bomey, *Volkswagen Emission Scandal Widens: 11 Million Cars Affected*, USA Today
(Sept. 22, 2015), [http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-](http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/)
26 [scandal/72605874/](http://www.usatoday.com/story/money/cars/2015/09/22/volkswagen-emissions-scandal/72605874/).

27 ¹²² Graham Ruddick, *Volkswagen chief quits over emissions scandal as car industry faces crisis*,
The Guardian (Sept. 23, 2015), [http://www.theguardian.com/business/2015/sep/23/volkswagen-](http://www.theguardian.com/business/2015/sep/23/volkswagen-chief-martin-winterkorn-quits-emissions-scandal)
28 [chief-martin-winterkorn-quits-emissions-scandal](http://www.theguardian.com/business/2015/sep/23/volkswagen-chief-martin-winterkorn-quits-emissions-scandal).

¹²³ *Id.*

1 everything it can to develop and implement the most stringent
2 compliance and governance standards in our industry.¹²⁴

3 195. On October 8, 2015, Defendant Horn made frank admissions of culpability in his
4 testimony before the House Committee on Energy and Commerce’s Subcommittee on Oversight
5 and Investigations. Under oath, Defendant Horn testified: “On behalf of our Company, and my
6 colleagues in Germany, I would like to offer a sincere apology for Volkswagen’s use of a
7 software program that served to defeat the regular emissions testing regime.”¹²⁵ In response to a
8 question from the Subcommittee Chairman, Representative Tim Murphy, whether the software
9 was installed “for the express purpose of beating tests,” Horn testified, “it was installed for this
10 purpose, yes.”¹²⁶

11 196. On November 2, 2015, the EPA issued a second Notice of Violation of the CAA
12 (the “Second NOV”) to VW AG, Audi AG, and VW America, this time directed at the larger 3.0-
13 liter, 6-cylinder diesel models—the same vehicles that Volkswagen continued to sell through its
14 dealers after the First NOV.¹²⁷ The Second NOV, which was also issued to Porsche AG and
15 Porsche America, disclosed that the EPA had sent a letter to manufacturers on September 25,
16 2015, stating it was assessing all diesel engine cars for defeat devices. The Second NOV stated
17 that Volkswagen had installed illegal defeat devices in certain vehicles equipped with 3.0-liter
18 diesel engines for model years 2014–16. Although not identical, the cheating alleged of
19 Volkswagen in the Second NOV concerned essentially the same mechanism Volkswagen used—
20 and admitted to using—in the First NOV.

21 197. However, shortly after it received the Second NOV, Volkswagen fired back at the
22 EPA’s new claims of fraud, denying that it installed defeat device software in the identified 3.0-
23 liter diesel vehicles. In response to the Second NOV, Volkswagen issued the following bold

24 ¹²⁴ *Matthias Müller appointed CEO of the Volkswagen Group*, Volkswagen AG (Sept. 25, 2015),
25 http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/09/CEO.html.

26 ¹²⁵ *Supra* note 1.

27 ¹²⁶ *Id.*

28 ¹²⁷ Letter from Susan Shinkman, Director, EPA Office of Civil Enforcement to Volkswagen dated
Nov. 2, 2015, <http://www.epa.gov/sites/production/files/2015-11/documents/vw-nov-2015-11-02.pdf>.

1 statement: "Volkswagen AG wishes to emphasize that no software has been installed in the 3.0-
2 liter V6 diesel power units to alter emissions characteristics in a forbidden manner."¹²⁸

3 198. Yet, the following day, despite Volkswagen's insistence that the 3.0-liter diesel
4 emission system was legal, Volkswagen ordered dealers to stop selling all six models at issue in
5 the Second NOV, in addition to the Audi Q7, which was also equipped with a 3.0-liter diesel
6 engine.¹²⁹ Porsche likewise discontinued sales of the 3.0-Liter Cayenne, despite claiming the
7 EPA notice was "unexpected."

8 199. On November 4, 2015, following its directive to halt sales of the 3.0-liter diesel
9 models, Volkswagen announced that an internal investigation revealed "unexplained
10 inconsistencies" with the carbon-dioxide output of 800,000 of its gasoline-powered vehicles.¹³⁰

11 200. At a meeting on November 19, 2015, after almost three weeks of denying the
12 EPA's allegations contained in the Second NOV, Audi finally admitted that defeat device
13 software was installed not only in the vehicles identified in the Second NOV, but in all 3.0-liter
14 Class Vehicles sold by Volkswagen, Audi, and Porsche. Porsche met separately with the EPA on
15 the same day. Specifically, Audi stated that it had failed to disclose three auxiliary emissions
16 control devices in its 3.0-liter diesel engines to U.S. regulators, and further admitted: "One of
17 them is regarded as a defeat device according to applicable U.S. law. Specifically, this is the
18 software for the temperature conditioning of the exhaust-gas cleaning system."¹³¹ On November
19 20, 2015, the EPA and CARB issued notices giving a complete list of 3.0-liter Class Vehicles that
20 were affected. On November 25, 2015, CARB sent a letter to Audi, Volkswagen and Porsche
21 stating that the same 3.0-liter engine, with the same defeat device, was used in all of the 3.0-liter

22 ¹²⁸ Emily Field, *Volkswagen Slams Newest EPA Emissions Fraud Claims*, Law360 (Nov. 3,
23 2015), <http://www.law360.com/articles/722478/volkswagen-slams-newest-epa-emissions-fraud-claims>.

24 ¹²⁹ Paul Lienert, *Volkswagen tells dealers to stop selling some 3.0 V6 diesel models*, Reuters
25 (Nov. 4, 2015), <http://www.reuters.com/article/us-volkswagen-emissions-stopsale-idUSKCN0ST2E420151104>.

26 ¹³⁰ Benedikt Kammel, *VW Emissions Issues Spread to Gasoline Cars*, Bloomberg (Nov. 3, 2015),
<http://www.bloomberg.com/news/articles/2015-11-03/volkswagen-emissions-woes-deepen-as-800-000-more-cars-affected>.

27 ¹³¹ *Statement on Audi's discussions with the US environmental authorities EPA and CARB*,
28 Volkswagen AG (Nov. 23, 2015), http://www.volkswagenag.com/content/vwcorp/info_center/en/news/2015/11/epa.html.

1 Class Vehicles sold by Volkswagen, Audi and Porsche. Volkswagen had publicly acknowledged
2 in a press release dated November 23, 2015, that the 3.0-liter engine “was developed by Audi”
3 and had been used in the Porsche Cayenne since 2013.

4 201. This admission came almost three months after Volkswagen’s initial, more limited
5 *mea culpa*. It came years after Audi employees first learned that their 3.0-liter diesel vehicles,
6 even when equipped with the more expensive SCR system, still could not pass NO_x emission
7 tests. Moreover, Audi had known for years that, with the installation of the defeat device, its 3.0-
8 liter diesel engines exceeded the legal limits of NO_x levels when operated in real world
9 conditions.

10 202. It also came and years after Porsche employees first attended meetings with Bosch
11 to discuss the diesel engine, began coordinating regulatory submissions regarding NO_x levels
12 with Audi and Volkswagen America, and learned, following the installation of the defeat device,
13 that their vehicles exceeded the legal limits of NO_x levels when operated in real world conditions.

14 203. Still, despite the admissions and apologies that followed each time a Volkswagen
15 lie was exposed, it became apparent that Volkswagen was not ready to fully accept responsibility
16 for its actions. Indeed, merely one month after Volkswagen admitted to the findings in the
17 Second NOV, Hans-Gerd Bode, Volkswagen’s Group Communications Chief, told a group of
18 reporters: “I can assure you that we certainly did not, at any point, knowingly lie to you. . . . We
19 have always tried to give you the information which corresponded to the latest level of our own
20 knowledge at the time.”¹³²

21 204. On January 4, 2016, the DOJ, on behalf of the EPA, filed a civil complaint against
22 VW AG, VW America, Volkswagen Group of America Chattanooga Operations LLC, Audi AG,
23 Audi, Porsche AG, and Porsche America for injunctive relief and the assessment of civil penalties
24 for their violations of the CAA. In addition to alleging the various violations of the CAA, the
25 complaint states that the Defendants impeded the government’s efforts to learn the truth about the
26

27 ¹³² Andreas Cremer, *Das Auto’ no more: Volkswagen plans image offensive*, Reuters (Dec. 22,
28 2014), [http://www.reuters.com/article/us-volkswagen-emissions-communications-i-
idUSKBN0U514L20151222](http://www.reuters.com/article/us-volkswagen-emissions-communications-idUSKBN0U514L20151222).

1 emission irregularities related to the Class Vehicles with material omissions and misleading
2 information.

3 205. On January 10, 2016, in an interview with NPR at the North American
4 International Auto Show, Müller claimed that Volkswagen *did not lie* to U.S. regulators about
5 emissions problems with its diesel engines, and suggested that the whole thing had been a
6 misunderstanding of U.S. law. Müller stated:

7 Frankly spoken, it was a technical problem. We made a default, we
8 had a . . . not the right interpretation of the American law. And we
9 had some targets for our technical engineers, and they solved this
10 problem and reached targets with some software solutions which
11 haven't been compatible to the American law. That is the thing.
12 And the other question you mentioned—it was an ethical problem?
13 I cannot understand why you say that. . . . We didn't lie. We didn't
14 understand the question first. And then we worked since 2014 to
15 solve the problem.¹³³

16 206. Moreover, since the fraud was first exposed, Volkswagen has consistently denied
17 that its top executives were involved with, or had knowledge of, the fraudulent scheme, instead
18 pinning the blame on the work of a few rogue engineers.

19 207. As an alternative tactic, during defendant Horn's Congressional hearing on
20 October 8, 2015, Horn testified that the installation of the defeat device in certain Volkswagen
21 diesel vehicles was the work of "a couple of software engineers who put this in for whatever
22 reason."¹³⁴ Horn's explanation is not only contrary to prior admissions, but entirely implausible.

23 208. To date, at least eleven of Volkswagen's top executives have either resigned under
24 pressure or been fired. Among the top executives dismissed are defendant Winterkorn, CEO and
25 Chairman of Volkswagen, who resigned almost immediately once the scandal became public;
26 Dr. Ulrich Hackenberg, a top engineering boss in the Audi Group, who was suspended and later
27 resigned; Heinz-Jakob Neusser, described as a Volkswagen "development" boss, who was
28 suspended and later resigned; and Wolfgang Hatz, Porsche's "development" boss and previously

¹³³ Sonari Ginton, *'We Didn't Lie,' Volkswagen CEO Says Of Emissions Scandal*, NPR (Jan. 11, 2016), <http://www.npr.org/sections/thetwo-way/2016/01/11/462682378/we-didnt-lie-volkswagen-ceo-says-of-emissions-scandal>.

¹³⁴ Paul A. Eisenstein, *Could Rogue Software Engineers Be Behind VW Emissions Cheating?*, NBC News (Oct. 9, 2015), <http://www.nbcnews.com/business/autos/could-rogue-software-engineers-be-behind-vw-emissions-cheating-n441451>.

1 Volkswagen's head of engine development, who was suspended and then resigned. Furthermore,
2 one of Volkswagen's top advertising executives purportedly "resigned" (although the company
3 has said that the resignation was unrelated to the present scandal), and VW America has replaced
4 their general counsel and head of public affairs, David Geanacopoulos. Frank Tuch, VW AG's
5 head of quality assurance, resigned on February 8, 2016—his departure likely tied to leadership
6 overhauls as Volkswagen's internal investigations continue. Michael Horn, head of VW
7 America, resigned on March 9, 2016.

8 209. That a few rogue engineers could orchestrate this massive, worldwide scheme is
9 implausible not only because of the firings of the above-listed executives, but also because
10 Volkswagen has been implicated using not just one, but *two* sophisticated defeat device software
11 programs, in *two* separate engines designed and manufactured by different engineers in different
12 corporate facilities. In addition, more than a dozen different Class Vehicles, involving three
13 separate brands—Volkswagen, Audi and Porsche—have been implicated in a fraud that began
14 more than a decade ago.

15 210. On October 17, 2015, Reuters reported that anonymous insiders, including a
16 Volkswagen manager and a U.S. official close to the government's investigation of the company,
17 claimed that Volkswagen made several modifications to its emission defeat device software over
18 the seven years the company has admitted to cheating.¹³⁵ Such incremental updates to the
19 software, which were made to accommodate new generations of engines during that timeframe,
20 evidences a larger group of employees making an ongoing effort to continue their deception.

21 211. As discussed above, on January 22, 2016, Germany's *Sueddeutsche Zeitung*
22 newspaper reported that Volkswagen's development of defeat device software to cheat diesel
23 emissions tests was an "open secret" in its engineering development department. Staff members
24 in engine development have stated that they felt pressure from the top of Volkswagen's corporate
25 hierarchy to find a cost-effective solution to develop "Clean Diesel" engines to increase U.S.
26 market share. Rather than concede that such engines could not be built (*i.e.*, were "impossible" as

27 ¹³⁵ Andreas Cremer, *et al.*, *VW made several defeat devices to cheat emissions tests: sources*,
28 Reuters (Oct. 17, 2015), <http://www.reuters.com/article/us-volkswagen-emissions-software-idUSKCN0SB0PU20151017>.

1 R&D chief Hatz once proclaimed), the development team decided to push ahead with
2 manipulation.¹³⁶

3 212. Quoting documents from Volkswagen's internal investigation, which included
4 testimony from a staff member who took part in the fraud, the German newspaper said: "Within
5 the company there was a culture of 'we can do everything', so to say something cannot be done,
6 was not acceptable. . . . Instead of coming clean to the management board that it cannot be done,
7 it was decided to commit fraud."¹³⁷ The newspaper further reported that staff in Volkswagen's
8 engine development department took comfort from the fact that regulators would not be able to
9 detect the fraud using conventional examination techniques.

10 213. The role of Volkswagen's top management in the fraud has recently come under
11 increased scrutiny after reports have emerged that Winterkorn was aware that Volkswagen was
12 rigging emissions tests on its vehicles more than a year before the scandal emerged, yet did
13 nothing to stop the practice.¹³⁸

14 214. According to German newspaper *Bild-Zeitung*, Winterkorn and other high-level
15 Volkswagen managers were warned by a senior executive about the risk of a U.S. investigation
16 into the use of the defeat devices back in May 2014.¹³⁹ The newspaper reported that the warning
17 came in the form of a letter from Bernd Gottweis, an employee known internally as the "fire-
18 fighter," who led a team called the "Product Safety Taskforce," which concentrated on crisis
19 prevention and management. The letter, which was uncovered by the internal investigation
20 carried out on Volkswagen's order, stated: "There is no well-founded explanation for the
21 dramatically higher NOX emissions that can be given to the authorities. It is to be suspected, that
22 the authorities will examine the VW systems to see whether Volkswagen has installed engine
23 management software (a so-called Defeat Device)." Thus, senior Volkswagen executives were

24 ¹³⁶ Georgina Prodhan, *Volkswagen probe finds manipulation was open secret in department:*
25 *newspaper*, Reuters (Jan. 23, 2016), [http://www.reuters.com/article/us-volkswagen-emissions-](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7)
26 [investigation-idUSKCN0V02E7](http://www.reuters.com/article/us-volkswagen-emissions-investigation-idUSKCN0V02E7).

27 ¹³⁷ *Id.*

28 ¹³⁸ Geoffrey Smith, *VW's ex-CEO Winterkorn 'Knew About Defeat Device in Early 2014,'*
Fortune (Feb. 15, 2016), <http://fortune.com/2016/02/15/vw-ceo-winterkorn-defeat-device/>.

¹³⁹ *Id.*

1 well aware of the issue a year and a half before the company's admission. In fact, issues related
2 to the defeat device had been presented in meetings with senior management at least by
3 November 2013. According to *Fortune* magazine, Audi engineers had considered use of defeat
4 device software as early as 1999, when Winterkorn was head of Audi.

5 215. The *Bild-Zeitung* newspaper also reported that a senior Volkswagen manager had
6 admitted the true level of emissions to a CARB official on August 5, 2015, over a month before
7 the EPA issued the First NOV I, and that Volkswagen brand chief Herbert Diess had convened
8 meetings on August 24th and August 25th to discuss how to react to the scandal that was about to
9 break.¹⁴⁰

10 216. The letter, of which *Bild-Zeitung* claims to have a copy, is the second leak
11 suggesting that knowledge of the emissions problems and use of the defeat devices extended far
12 higher, far earlier, than Volkswagen has admitted. Indeed, the German magazine *Manager* has
13 reported that Volkswagen's management had already discussed the issue in the spring of 2014 in
14 reference to a letter received from the EPA.¹⁴¹ The revelations from these reports directly
15 contradict arguments made by Winterkorn and Horn that they were unaware of the use of defeat
16 devices applied specifically to circumvent U.S. regulations.

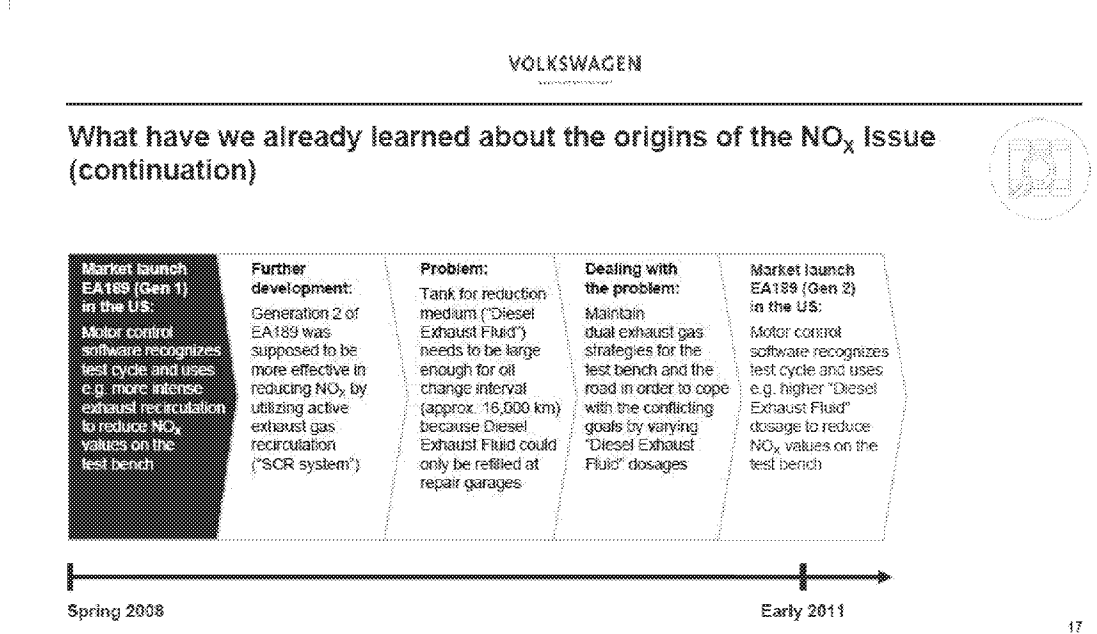
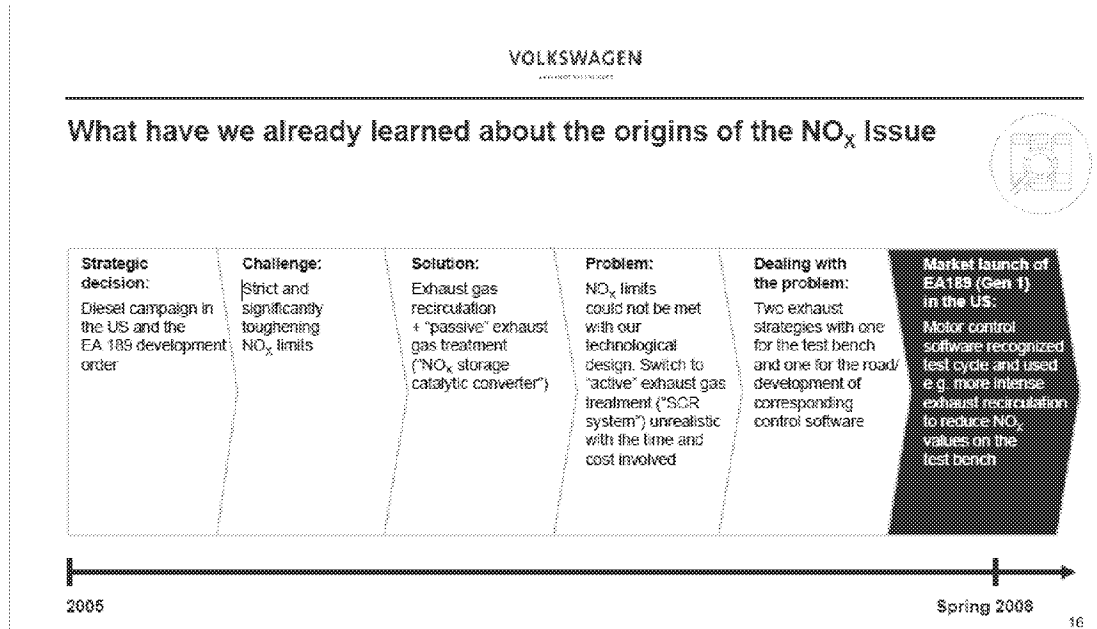
17 217. At a December 10, 2015, press conference, during which Volkswagen discussed
18 preliminary results of their internal investigation, executives summed up the state of affairs, and
19 admitted that Volkswagen had installed defeat devices to take shortcuts around engineering
20 challenges. Faced with "[s]trict and significantly toughening NO_x limits," Volkswagen knew
21 those "NO_x limits could not be met with [their] technological design" for lean NO_x traps so
22 instead they dealt with the problem by installing defeat devices on those Class Vehicles. The
23 Class Vehicles with urea treatments faced a separate problem: the urea tanks were too small for
24 consumers to maintain urea levels at standard maintenance intervals. Volkswagen also took
25 shortcuts around these engineering challenges by implementing a defeat device to reduce urea
26 consumption and illegally stretch the capacity of its urea tanks outside of test

27 ¹⁴⁰ *Id.*

28 ¹⁴¹ *Id.*

conditions. Volkswagen concluded this presentation by implicitly acknowledging the toxicity of its corporate culture, as Volkswagen announced it would establish a “new mindset” among Volkswagen leadership that has “[m]ore capacity for criticism.”¹⁴²

218. The entire after-the-fact chronology and explanation of how and why Volkswagen perpetrated its fraud is set forth in its December 10, 2015, presentation, as follows:



¹⁴² Volkswagen AG, *The Volkswagen Group is moving ahead: Investigation, customer solutions, realignment*, Volkswagen AG (Dec. 10, 2015), http://www.volkswagenag.com/content/vwcorp/info_center/en/talks_and_presentations/2015/12/Presentation_MUE_POE.bin.html/binarystorageitem/file/2015_12_10_Pr%C3%A4sentation+PK_Final_ENG.pdf.

1 **H. Defendants' Conduct Harmed Competitor Dealers**

2 219. Defendants identified and targeted competing vehicles from whom it sought to
3 (and did) take market share through its fraudulent promotion of the Class Vehicles. Competing
4 vehicles, whether identified by Defendants as such or not, included fuel efficient vehicles, like the
5 Toyota Prius, that were already on the market at the time Defendants began marketing the Class
6 Vehicles, as well as competing fuel efficient and/or diesel vehicles that came on the market
7 during the period that Defendants were marketing the Class Vehicles.

8 220. Beginning in 2013, Chevrolet dealers began marketing the Chevrolet Cruze Diesel
9 in competition with the Class Vehicles.

10 221. In fact, industry reports regularly recognized the Cruze Diesel as a competitor of
11 the Volkswagen Jetta TDI:

12 The 2014 Chevrolet Cruze Diesel went on sale almost a year ago,
13 the first diesel passenger car sold by General Motors in 28 years.

14 Hopes were high for the Cruze with the European turbodiesel
15 engine, which effectively competed with the long-established
16 Volkswagen Jetta TDI, the only other mainstream compact sedan
17 fitted with a diesel.

18 222. Moreover, in the same brochure that touted the Jetta TDI as “run[ning] cleaner
19 with lower CO2 emissions than 90% of other vehicles,” Volkswagen specifically compared the
20 Jetta TDI with the Honda Civic Hybrid, the Mazda3, the Toyota Prius, and the Ford Focus SFE.

21 223. Defendants' internal marketing documents, as well as industry data and
22 information, and/or other sources, no doubt identify other vehicles as competitors of the Class
23 Vehicles.

24 224. By falsely or negligently representing the superior performance, clean emissions,
25 and high mileage of the Class Vehicles in its commercial advertising, Volkswagen misrepresented
26 the nature, characteristics, and qualities of their goods.

27 225. Each and every one of the Class Vehicles sold in the United States represents a lost
28 sale of a competing vehicle that could actually deliver the fuel efficiency and clean emissions that
Defendants falsely promised and that buyers were seeking.

1 226. Among other things, Defendants' false representations have caused injury to the
2 Competitor Dealer Plaintiffs' commercial interest in sales. Specifically, Defendants' conduct
3 negatively affected the price and sales of the Cruze Diesel, the Honda Civic Hybrid, the Mazda3,
4 Toyota Prius, the Ford Focus SFE, and the other car models identified by Defendants, or by
5 industry data and information and/or other sources, as competitors with the Class Vehicles,
6 thereby damaging the Competitor Dealer Plaintiffs and the members of the Competitor Dealer
7 Class. The Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class have
8 also been injured and continue to suffer injury though, among other things, increased expenses,
9 and loss of goodwill in the diesel vehicle marketplace.

10 227. To the extent that Competitor Dealer Plaintiffs and/or members of the Competitor
11 Dealer Class may have at any time acquired one or more of the Class Vehicles in trade, they may
12 have suffered additional damages as well.

13 **TOLLING OF THE STATUTE OF LIMITATIONS**

14 **A. Discovery Rule**

15 228. The causes of action alleged herein did not accrue until the Competitor Dealer
16 Plaintiffs and the members of the Competitor Dealer Class discovered that the Class Vehicles
17 were equipped with the defeat devices and were not delivering the low emissions that were
18 advertised by Defendants, and that, if such low emissions were delivered, the Class Vehicles
19 would not deliver the performance or other features advertised by Defendants.

20 229. The Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class
21 had no realistic ability to discover the presence of the defeat devices, or to otherwise learn of the
22 fraud, until it was discovered by the EPA and the CARB and revealed to the public on September
23 18, 2015. Indeed, the whole purpose of the defeat devices was to conceal that the Class Vehicles'
24 emissions actually exceeded amounts allowed by the CAA and applicable state laws. The EPA
25 and the CARB uncovered the software manipulation only through sophisticated, costly
26 investigation employing expertise, tools, and techniques scarcely available to the Competitor
27 Dealer Plaintiffs and the members of the Competitor Dealer Class. Put simply, no amount of
28

1 diligence by the Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class
2 would have been sufficient to uncover Defendant' scheme.

3 230. The causes of action alleged herein did not accrue until the Competitor Dealer
4 Plaintiffs and the members of the Competitor Dealer Class discovered that the Class Vehicles
5 were equipped with the defeat devices and were not delivering the low emissions that were
6 advertised by Defendants, and that, if such low emissions were delivered, the Class Vehicles
7 would not deliver the performance or other features advertised by Defendants.

8 231. The Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class
9 had no realistic ability to discover the presence of the defeat devices, or to otherwise learn of the
10 fraud, until it was discovered by the EPA and the CARB and revealed to the public on September
11 18, 2015. Indeed, the whole purpose of the defeat devices was to conceal that the Class Vehicles'
12 emissions actually exceeded amounts allowed by the CAA and applicable state laws. The EPA
13 and the CARB uncovered the software manipulation only through sophisticated, costly
14 investigation employing expertise, tools, and techniques scarcely available to the Competitor
15 Dealer Plaintiffs and the members of the Competitor Dealer Class. Put simply, no amount of
16 diligence by the Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class
17 would have been sufficient to uncover Defendant' scheme.

18 **B. Fraudulent Concealment**

19 232. All applicable statutes of limitation have also been tolled by Defendants' knowing
20 and active fraudulent concealment and denial of the facts alleged herein.

21 233. Defendants have known of the defeat devices installed in the Class Vehicles since
22 at least 2009 when they began installing them, and have intentionally concealed from or failed to
23 notify the Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class, and the
24 public of the defeat devices and the true emissions and performance of the Class Vehicles.

25 234. The defeat device is a complicated software algorithm designed only to detect
26 emissions testing conditions in order to selectively initiate the full emissions controls and trick the
27 emissions test. The defeat device could only have been installed intentionally by the Defendants,
28 and the only purpose of the code is to deceive regulators, consumers, and the public.

1 235. Despite knowing about the defeat device and unlawful emissions, Defendants did
2 not acknowledge the problem until after the EPA issued its NOV on September 18, 2015.

3 236. Any applicable statute of limitation has therefore been tolled by Defendants'
4 knowledge and active concealment of the facts alleged herein.

5 **C. Estoppel**

6 237. Defendants were and are under a continuous duty to disclose to Plaintiffs and
7 Class members the true character, quality, and nature of the Class Vehicles, including their
8 emissions systems and their compliance with applicable federal and state law. Instead,
9 Volkswagen actively concealed the true character, quality, and nature of the Class Vehicles and
10 knowingly made misrepresentations about the quality, reliability, characteristics, and performance
11 of the Class Vehicles.

12 238. Plaintiffs and Class members reasonably relied upon Volkswagen's knowing and
13 affirmative misrepresentations and/or active concealment of these facts.

14 239. Based on the foregoing, Defendants are estopped from relying on any statutes of
15 limitation in defense of this action.

16 **CLASS ACTION ALLEGATIONS**

17 240. The Competitor Dealer Plaintiffs bring this action under Rules 23 (a), (b) (2), and
18 (b) (3) of the Federal Rules of Civil Procedure on behalf of itself and a nationwide Competitor
19 Dealer Class consisting of all auto dealerships in the United States that, during the period 2009-
20 2015, marketed and sold vehicle models, including but not limited to the Chevrolet Cruze Diesel,
21 the Honda Civic Hybrid, the Mazda3, Toyota Prius, the Ford Focus SFE, identified by
22 Defendants, or by industry data and information and/or other sources, as competitors with the
23 Class Vehicles. Competitor Dealer Plaintiffs expect to identify through discovery all such
24 competing models and to seek class certification based on a list of specified competing models.
25 Competitor Dealer Plaintiffs reserve the right to revise the class definition based upon
26 information learned through discovery.

27 241. Excluded from the Competitor Dealer Class are Volkswagen and its subsidiaries
28 and affiliates; all persons who make a timely election to be excluded from the class; governmental

1 entities; and the judge to whom this case is assigned and his/her immediate family. Also excluded
2 from the Competitor Dealer Class are any individuals or organizations who, at the time of class
3 certification, have settled the claims asserted in this action.

4 242. Plaintiff Carriage Chevrolet also brings this action under Rules 23 (a), (b)(2), and
5 (b)(3) of the Federal Rules of Civil Procedure on behalf of a Tennessee Subclass consisting of all
6 members of the Competitor Dealer Class who marketed and sold competing vehicles in the State
7 of Tennessee during the relevant time period.

8 243. Plaintiff Brown Daub also brings this action under Rules 23 (a), (b) (2), and (b)(3)
9 of the Federal Rules of Civil Procedure on behalf of a Pennsylvania Subclass consisting of all
10 members of the Competitor Dealer Class who marketed and sold competing vehicles in the
11 Commonwealth of Pennsylvania during the relevant time period.

12 244. Plaintiff Eagle Auto also brings this action under Rules 23 (a), (b)(2), and (b)(3) of
13 the Federal Rules of Civil Procedure on behalf of a New York Subclass consisting of all members
14 of the Competitor Dealer Class who marketed and sold competing vehicles in the State of New
15 York during the relevant time period..

16 245. Plaintiffs Saturn SW Florida and Victory Layne also bring this action under Rules
17 23 (a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure on behalf of a Florida Subclass
18 consisting of all members of the Competitor Dealer Class who marketed and sold competing
19 vehicles in the State of Florida during the relevant time period..

20 246. Plaintiff Windham also brings this action under Rules 23 (a), (b)(2), and (b)(3) of
21 the Federal Rules of Civil Procedure on behalf of an Alabama Subclass consisting of all members
22 of the Competitor Diesel Class who marketed and sold competing vehicles in the State of
23 Alabama during the relevant time period..

24 247. This action has been brought and may be properly maintained on behalf of the
25 class and the subclasses proposed herein under Federal Rule of Civil Procedure 23.

26 248. The members of the Competitor Dealer Class and the Tennessee, Pennsylvania,
27 New York, Florida, and Alabama Subclasses are readily identifiable and ascertainable from
28 public and industry records.

1 249. The members of the Competitor Dealer Class are so numerous and geographically
2 dispersed that individual joinder of all class members is impracticable, in that there are tens of
3 thousands of car dealers throughout the United States that sold vehicles that competed with the
4 Class Vehicles.

5 250. Class members may be notified of the pendency of this action by recognized,
6 court-approved notice dissemination methods, which may include U.S. mail, electronic mail,
7 Internet postings, and/or published notice.

8 251. Certification of the Competitor Dealer Plaintiffs' claims for class-wide treatment is
9 appropriate because Plaintiffs can prove the elements of their claims on a class-wide basis using
10 the same evidence as would be used to prove those elements in individual actions alleging the
11 same claim.

12 252. This action involves common questions of law and fact, which predominate over
13 any questions affecting individual Class members, including, without limitation:

- 14 a. Whether Defendants deliberately or negligently designed and installed the above-
15 described "defeat devices" in the Class Vehicles;
- 16 b. Whether Defendants deliberately or negligently concealed the existence of the
17 "defeat devices" in the Class Vehicles;
- 18 c. Whether Defendants falsely represented the performance capabilities of the Class
19 Vehicles;
- 20 d. Whether Defendants falsely represented the emissions qualities of the Class
21 Vehicles;
- 22 e. Whether Defendants falsely represented the legal compliance of the Class
23 Vehicles;
- 24 f. Whether Defendants used in commerce false or misleading descriptions of fact,
25 and/or false or misleading representations fact, which misrepresented, and were
26 likely to cause and/or did cause confusion and mistake or to deceive, the fuel
27 economy, performance and emissions standards of the Class Vehicles;
- 28

- g. Whether Defendants' false statement and misrepresentations in commercial advertising or promotion misrepresented the nature, characteristics, or qualities of the Class Vehicles;
- h. Whether Defendants' false statements and misrepresentations in commercial advertising or promotion were literally false;
- i. Whether Defendants' false statements and misrepresentations in commercial advertising or promotion were likely to, and did, deceive or confuse consumers;
- j. Whether Defendants' false statements and misrepresentations in commercial advertising or promotion for the Class Vehicles were material;
- k. Whether Defendants' misrepresentations caused consumers to purchase the Class Vehicles instead of vehicles sold by Plaintiff and Class members;
- l. Whether Defendants' conduct as described here in violated the Lanham Act;
- m. Whether Defendants' conduct as described constituted unfair competition and/or deceptive acts or practices under the laws of Tennessee, Pennsylvania, New York, Florida, and Alabama.

253. Competitor Dealer Plaintiffs claims are typical of the claims of the other class member because all members of the class, like the Competitor Dealer Plaintiffs, were in the business of selling cars that competed with the Class Vehicles and thus suffered injury from Defendants' false statements and misrepresentations about those vehicles.

254. The claims of each Competitor Dealer Plaintiff are also typical of the claims of the other members of the subclass that each Competitor Dealer Plaintiff seeks to represent because all members of each subclass were in the business of selling cars that competed with the Class Vehicles within the same state as the respective Competitor Dealer Plaintiff seeking to represent that subclass.

255. Competitor Dealer Plaintiffs are adequate class representatives because their interests do not conflict with the interests of the other members of the class they seek to represent; they are represented by counsel competent and experienced in complex class action litigation; and they intend to prosecute this action vigorously. The interests of the Competitor Dealer Class will

1 be fairly and adequately protected by the Competitor Dealer Plaintiffs, their counsel, and by the
2 Plaintiffs' Steering Committee appointed by this Court.

3 256. This action is suitable for certification under Federal Rule of Civil Procedure
4 23(b)(2) because Volkswagen has acted or refused to act on grounds generally applicable to the
5 Competitor Dealer Plaintiffs and the other members of the Competitor Dealer Class, thereby
6 making appropriate final injunctive relief and declaratory relief, as described below, with respect
7 to the Competitor Dealer Class as a whole., and with respect to each subclass as a whole.

8 257. This action is also suitable for certification under Federal Rule of Civil Procedure
9 23(b)(3) because, as noted above, the common questions predominate over any individual issues,
10 a class action is superior to any other available means for the fair and efficient adjudication of this
11 controversy, and no unusual difficulties are likely to be encountered in the management of this
12 class action. In particular, the damages or other financial detriment suffered by each Competitor
13 Dealer Plaintiff and each of the members of the Competitor Dealer Class are relatively small
14 compared to the burden and expense that would be required to individually litigate their claims
15 against Volkswagen, so it would be impracticable for the members of the class to seek redress
16 individually for Defendants' wrongful conduct. Even if Class members could afford individual
17 litigation, the court system could not. Individualized litigation creates a potential for inconsistent
18 or contradictory judgments, and increases the delay and expense to all parties and the court
19 system. By contrast, the class action device presents far fewer management difficulties, and
20 provides the benefits of single adjudication, economy of scale, and comprehensive supervision by
21 a single court.

22 **CLAIMS FOR RELIEF**

23 **FIRST CLAIM FOR RELIEF:** 24 **VIOLATION OF THE LANHAM ACT** 25 **(On behalf of the Competitor Dealer Plaintiffs and the Competitor Dealer Class)**

26 258. Competitor Dealer Plaintiffs repeat, re-allege, and incorporate by reference each
27 and every paragraph alleged in this Complaint as if fully set forth herein.

28 259. The Lanham Act provides in pertinent part:

1 (1) Any person who, on or in connection with any goods or
2 services, or any container for goods, uses in commerce any word,
3 term, name, symbol, or device, or any combination thereof, or any
false designation of origin, false or misleading description of fact,
or false or misleading representation of fact, which—

4 (B) In commercial advertising or promotion, misrepresents
5 the nature, characteristics, qualities, or geographic origin of
6 his or her or another person's goods, services, or
commercial activities,

7 Shall be liable in a civil action by any person who believes
8 that he or she is or is likely to be damaged by such act.

15 U.S.C. § 1125(a) (emphasis added).

9 260. As described herein, Defendants used in commerce false or misleading
10 descriptions of fact, and/or false or misleading representations fact, which misrepresented, and
11 were likely to cause and/or did cause confusion and mistake or to deceive, the fuel economy,
12 performance and emissions standards of the Class Vehicles.

13 261. Defendants' false statement and misrepresentations in commercial advertising or
14 promotion misrepresented the nature, characteristics, or qualities of the Class Vehicles.

15 262. Defendants' false statements and misrepresentations in commercial advertising or
16 promotion were literally false because, with the "defeat device" turned off, the vehicles in
17 question were not "clean," did not reduce emissions, did not produce lower emissions than
18 gasoline engines, and did not meet emissions standards; moreover, with the "defeat device" on,
19 the vehicles did not perform, nor achieve the fuel efficiencies, as described.

20 263. Defendants' false statements and misrepresentations in commercial advertising or
21 promotion were likely to, and did, deceive or confuse consumers by creating the impression that
22 the vehicles in question were "clean," and that they dramatically reduced emissions, produced
23 lower emissions than gasoline engines or competing vehicles, met emissions standards, and
24 simultaneously delivered high performance and fuel efficiency as well.

25 264. Defendants' false statements and misrepresentations in commercial advertising or
26 promotion for the Class Vehicles were material in that they pertained to an inherent quality or
27 characteristic of the vehicles described and were intended to, likely to, and in fact did, influence
28 consumers' purchasing decisions.

1 265. Defendants' representations were distributed in interstate commerce and have
2 appeared widely in interstate commerce in the form of various Volkswagen advertising and
3 promotional materials, including but not limited to, website materials, television commercials,
4 print advertisements, and product brochures. These commercial advertisements have all
5 misrepresented the fuel economy, performance and emissions standards of the Class Vehicles.

6 266. The Class Vehicles themselves, which were the subject of Defendants' advertising
7 and promotion, travelled and were disseminated in interstate commerce.

8 267. Defendants had an economic motivation for making the representations, as it was
9 in Defendants' economic interest to remain competitive in the marketplace and to sell the Class
10 Vehicles.

11 268. Defendants' false representations were targeted at the marketplace and general
12 purchasing public in order to influence consumers to purchase their diesel automobiles to the
13 detriment of the Competitor Dealer Plaintiffs and the members of the Competitor Dealer Class.

14 269. Defendants' conduct was willful.

15 270. The Competitor Dealer Plaintiffs and the other members of the Competitor Dealer
16 Class have and continue to be damaged by Defendants' misrepresentations. The Competitor
17 Dealer Plaintiffs and the Competitor Dealer Class members were injured and continue to suffer
18 injury to, among other things, lost sales, price erosion, increased expenses, and loss of goodwill in
19 the diesel vehicle marketplace. Those economic injuries are likely to continue in the future.

20 271. By reason of the foregoing, Defendants are liable to the Competitor Dealer
21 Plaintiffs and the members of the Competitor Dealer Class for actual damages as a result of
22 Defendants' violations of the Lanham Act in an amount to be proved at trial, as well as for
23 disgorgement of Defendants' profits resulting from the sales of the Class Vehicles in the United
24 States; treble damages due to the extraordinary circumstances of Defendants' misrepresentations;
25 and reasonable attorneys' fees.
26
27
28

1 **SECOND CLAIM FOR RELIEF:**
2 **UNJUST ENRICHMENT**
3 **(On behalf of the Competitor Dealer Plaintiffs and the Competitor Dealer Class)**

4 272. Competitor Dealer Plaintiffs repeat, re-allege, and incorporate by reference each
5 and every paragraph alleged in this Complaint as if fully set forth herein.

6 273. Defendants have been unjustly enriched at the expense of the Competitor Dealer
7 Plaintiffs and the Competitor Dealer Class members as a result of their actions.

8 274. The value of the benefit received by Defendants, whereby they have been unjustly
9 enriched, is equivalent to the monies received by Defendants from the sale of their diesel
10 automobiles.

11 275. Plaintiff seeks the imposition of a constructive trust on all proceeds collected or
12 received by Defendants associated with the sales of the Class Vehicles in the United States.

13 276. As a result of Defendant's conduct, the Competitor Dealer Plaintiffs and the
14 Competitor Dealer Class members were injured and continue to suffer injury to, among other
15 things, lost sales, price erosion, increased expenses, and loss of goodwill in the diesel vehicle
16 marketplace.

17 277. Those economic injuries are likely to continue in the future.

18 278. By reason of the foregoing, Defendants are liable by reason of their unjust
19 enrichment for disgorgement to the Competitor Dealer Plaintiffs and the members of the
20 Competitor Dealer Class in an amount to be proved at trial.

21 **THIRD CLAIM FOR RELIEF:**
22 **DECEPTIVE TRADE PRACTICES UNDER TENN. CODE ANN. § 47-18-104**
23 **(On behalf of Carriage Chevrolet and the Tennessee Subclass)**

24 279. Competitor Dealer Plaintiffs repeat, re-allege, and incorporate by reference each
25 and every paragraph alleged in this Complaint as if fully set forth herein.

26 280. Tennessee's Consumer Protection, § 47-18-104, makes it unlawful to
27 "[d]isparag[e] the goods, services or business of another by false or misleading representations of
28 fact. . . ."

29 281. Defendants' conduct, as described herein, constituted false and misleading
30 representations of fact. These false and misleading representations disparaged competing

1 vehicles sold by members of the Tennessee Subclass by falsely claiming or suggesting that the
2 Class Vehicles were cleaner and more fuel efficient, and delivered superior performance, as
3 compared to competing vehicles.

4 282. Defendants' unlawful conduct was consumer-oriented in that it was designed to,
5 had the capacity to, and did, deceive consumers and affect consumer purchase decisions in the
6 State of Tennessee.

7 283. Defendants' conduct described herein affected the public interest, and in
8 particular, the public interest in the State of Tennessee, because that conduct perpetrated a
9 massive fraud on consumers in Tennessee and also because, as a result of Defendants' conduct,
10 purchasers of the Class Vehicles unwittingly emitted nitrogen oxides (NOx) at up to 40 times the
11 standard allowed under United States laws and regulations while driving their vehicles with the
12 "defeat device," resulting in additional, unlawful, and unintended air pollution in Tennessee,
13 which would not have occurred had consumers purchased a competing vehicle from members of
14 the Tennessee Subclass.

15 284. Plaintiff Carriage Chevrolet and the members of the Tennessee Subclass have
16 suffered an ascertainable loss of money or property as a result of Defendants' unfair or deceptive
17 practice in using false or misleading statements to disparage competing vehicles. This loss
18 includes, without limitation: reduced sales; price erosion; additional marketing expenses; and loss
19 of good will in the diesel automobile marketplace.

20 285. By reason of the foregoing, Defendants are liable to Carriage Chevrolet and the
21 members of the Tennessee Subclass for damages resulting from violation of § 47-18-104, in an
22 amount to be proved at trial.

23 **FOURTH CLAIM FOR RELIEF:**
24 **UNFAIR COMPETITION UNDER TENNESSEE LAW**
(On behalf of Carriage Chevrolet and the Tennessee Subclass)

25 286. Competitor Dealer Plaintiffs repeat, re-allege, and incorporate by reference each
26 and every paragraph alleged in this Complaint as if fully set forth herein.
27
28

1 287. Under Tennessee law, the common law tort of unfair competition can be found
2 when the defendant engages in any conduct that amounts to a recognized tort and when that tort
3 deprives the plaintiff of customers or other prospects.

4 288. As described herein, Defendants made misrepresentations and concealed material
5 facts in the State of Tennessee regarding the fuel economy, performance and emissions standards
6 of the Class Vehicles. Defendants' misrepresentations and false statements were tortious.

7 289. As described herein, Defendants' tortious misrepresentations and false statements
8 in the State of Tennessee deprived Carriage Chevrolet and the members of the Tennessee
9 Subclass of customers because the false statements led consumers to believe that the Class
10 Vehicles had qualities they did not have, and for that reason to purchase one of the Class Vehicles
11 instead of vehicles sold by Carriage Chevrolet and the members of the Tennessee Subclass.

12 290. As described herein, Defendants' tortious misrepresentations and false statements
13 in the State of Tennessee deprived Carriage Chevrolet and the members of the Tennessee
14 Subclass of customers because the false statements damaged the reputation of diesel vehicles,
15 making consumers less likely to purchase competing vehicles sold by Carriage Chevrolet and the
16 members of the Tennessee Subclass.

17 291. Defendants' misrepresentations in the State of Tennessee caused harm to Carriage
18 Chevrolet and members of the Tennessee Subclass. Such harm includes, without limitation:
19 reduced sales; price erosion; additional marketing expenses; and loss of good will in the diesel
20 automobile marketplace.

21 292. Defendants' conduct was willful, wanton, intentional, malicious and reckless.

22 293. By reason of the foregoing, Defendants are liable to Carriage Chevrolet and the
23 members of the Tennessee Subclass for damages resulting from unfair competition under
24 Tennessee law, in an amount to be proved at trial.

25 **FIFTH CLAIM FOR RELIEF:**
26 **UNFAIR COMPETITION UNDER PENNSYLVANIA LAW**
27 **(On behalf of Brown Daub and the members of the Pennsylvania Subclass)**

28 294. Plaintiff Brown Daub repeats, re-alleges, and incorporates by reference each and
every paragraph alleged in this Complaint as if fully set forth herein.

295. Pennsylvania courts recognize a cause of action for the common law tort of unfair competition.

296. As described herein, Defendants made numerous misrepresentations in the Commonwealth of Pennsylvania regarding the nature, characteristics, and qualities of the Class Vehicles.

297. Defendants' misrepresentations in the Commonwealth of Pennsylvania were intended to induce consumers to purchase the Class Vehicles instead of the competing vehicles sold by Brown Daub and members of the Pennsylvania Subclass.

298. Defendants' misrepresentations in the Commonwealth of Pennsylvania gave them an unfair advantage over Brown Daub and members of the Pennsylvania Subclass.

299. Defendants' misrepresentations in the Commonwealth of Pennsylvania caused harm to Brown Daub and members of the Pennsylvania Subclass. Such harm includes, without limitation: reduced sales; price erosion; additional marking expenses; and loss of good will in the diesel automobile marketplace.

300. By reason of the foregoing, Defendants are liable to Brown Daub and the members of the Pennsylvania Subclass for damages resulting from unfair competition under Pennsylvania law in an amount to be proved at trial.

**SIXTH CLAIM FOR RELIEF:
DECEPTIVE ACTS AND PRACTICES UNDER NEW YORK GEN. BUS. LAW § 349
(On behalf of Eagle Auto and the members of the New York Subclass)**

211. Plaintiff Eagle Auto repeats, re-alleges, and incorporates by reference each and every paragraph alleged in this Complaint as if fully set forth herein.

212. New York’s General Business Law § 349 makes unlawful “[d]eceptive acts or practices in the conduct of any business, trade or commerce or . . . in this state.”

213. Defendants willfully or knowingly engaged in deceptive and misleading representations and omissions aimed at causing reasonable consumers and the public in the State of New York to be deceived about the fuel economy, performance, and emissions of the Class Vehicles. Defendants' conduct described herein constitutes deceptive acts or practices in the conduct of business, trade or commerce.

1 214. Defendants' unlawful conduct was consumer-oriented in that it was designed to,
2 had the capacity to, and did, deceive consumers and affect consumer purchase decisions in the
3 State of New York.

4 215. Defendants' conduct described herein affected the public interest, and in
5 particular, the public interest in New York State, because that conduct perpetrated a massive
6 fraud on consumers in New York and also because, as a result of Defendants' conduct, purchasers
7 of the Class Vehicles unwittingly emitted nitrogen oxides (NOx) at up to 40 times the standard
8 allowed under United States laws and regulations while driving their vehicles with the "defeat
9 device," resulting in additional, unlawful, and unintended air pollution in New York, which
10 would not have occurred had consumers purchased a competing vehicle from members of the
11 New York Subclass.

12 216. As a direct and proximate cause of Defendants' deception in the State of New
13 York, Eagle Auto and the members of the New York Subclass have suffered harm and damages
14 as described above. This injury is separate from, and not derivative of, the injury to any other
15 person or entity that may have resulted from Defendants' conduct. The injury suffered by Eagle
16 Auto and the members of the New York Subclass includes, without limitation: reduced sales;
17 price erosion; additional marketing expenses; and loss of good will in the diesel automobile
18 marketplace.

19 217. By reason of the foregoing, Defendants are liable to Eagle Auto and the New York
20 subclass for actual damages resulting from violation of New York General Business Law § 349 in
21 an amount to be proved at trial, trebling of those damages, and reasonable attorneys' fees.

22 **SEVENTH CLAIM FOR RELIEF:**
23 **UNFAIR COMPETITION UNDER NEW YORK LAW**
24 **(On behalf of Eagle Auto and the members of the New York Subclass)**

25 218. Plaintiff Eagle Auto repeats, re-alleges, and incorporates by reference each and
26 every paragraph alleged in this Complaint as if fully set forth herein.

27 219. Under New York law, unfair competition is a form of unlawful business injury
28 based on a fraudulent conduct likely to deceive or confuse the public to the commercial detriment
of another.

1 220. Defendants' actions described herein constituted a fraud upon the public in the
2 State of New York.

3 221. Defendants' false statements and misrepresentations described herein were likely
4 to deceive the public in the State of New York.

5 222. Defendants' false statements and misrepresentations described herein were likely
6 to confuse the public in the State of New York about the nature and quality of the Class Vehicles.

7 223. Defendants acted in bad faith with respect to the false statements and
8 misrepresentations described herein.

9 224. Plaintiff Eagle Auto and the members of the New York Subclass were competitors
10 of Volkswagen with respect to the Class Vehicles.

11 225. Defendants' false statements and misrepresentations in the State of New York
12 described herein have caused a diversion of trade from Plaintiff Eagle Auto and the members of
13 the New York Subclass to Defendants, in that, based on those false statements and
14 misrepresentations, consumers who would have purchased vehicles from Eagle Auto and the
15 members of the New York Subclass instead purchased one or more of the Class Vehicles.

16 226. Defendants' false statements and misrepresentations in the State of New York
17 described herein resulted in injury to Plaintiff Eagle Auto and the members of the New York
18 Subclass. Such harm includes, without limitation: reduced sales; price erosion; additional
19 marking expenses; and loss of good will in the diesel automobile marketplace.

20 227. By reason of the foregoing, Defendants are liable to Eagle Auto and the members
21 of the New York Subclass for damages resulting from unfair competition in an amount to be
22 proved at trial.

23 **EIGHTH CLAIM FOR RELIEF:**
24 **VIOLATION OF FLORIDA DECEPTIVE AND UNFAIR TRADE PRACTICES ACT**
 (On behalf of Saturn SW Florida and Victory Layne and the members of the Florida
 Subclass)

25 228. Plaintiffs Saturn SW Florida and Victory repeats, re-alleges, and incorporates by
26 reference each and every paragraph alleged in this Complaint as if fully set forth herein.

27 229. The Florida Deceptive and Unfair Trade Practices Act (FDUPTA) Fla. Stat. §§
28

1 501.201, et. seq., makes “[u]nfair methods of competition, unconscionable acts or practices, and
2 unfair or deceptive acts or practices in the conduct of any trade or commerce” unlawful.

3 230. Defendants’ conduct described herein in the State of Florida constituted unfair
4 methods of competition, unconscionable acts, and unfair and deceptive practices in the conduct of
5 trade or commerce within the State of Florida.

6 231. Plaintiffs Saturn SW Florida and Victory Layne, and the members of the Florida
7 Subclass have suffered a loss as a result of Defendants’ violation of FDUPTA in the State of
8 Florida. That loss includes lost sales, price erosion, increased expenses, and loss of goodwill in
9 the diesel vehicle marketplace.

10 232. By reason of the foregoing, Defendants are liable to Saturn SW Florida and
11 Victory Layne and the members of the Florida Subclass for actual damages resulting from
12 Defendants’ unfair trade practices in violation of FDUPTA in an amount to be proved at trial,
13 along with attorneys’ fees and court costs.

14 **NINTH CLAIM FOR RELIEF:**
15 **UNFAIR COMPETITION UNDER FLORIDA LAW**
16 **(On behalf of Saturn SW Florida and Victory Layne and the members of the Florida Subclass)**

17 233. Plaintiffs Saturn SW Florida and Victory Layne repeat, re-allege, and incorporate
18 by reference each and every paragraph alleged in this Complaint as if fully set forth herein.

19 234. Under Florida law, a party may assert a common law claim for unfair competition
20 when a competitor engages in deceptive or fraudulent conduct and there is a likelihood of
21 consumer confusion. The Florida common law of unfair competition is an umbrella for all causes
22 of action arising out of business conduct which is contrary to honest practice in industrial or
23 commercial matters.

24 235. Defendants’ conduct as described herein constituted deceptive or fraudulent
25 conduct in Florida within the meaning of Florida law.

26 236. Defendants’ conduct as described herein was likely to, and in fact did, cause
27 consumer confusion in Florida as to the nature and quality of the Class Vehicles.

28 237. Plaintiffs Saturn SW Florida and Victory Layne and the members of the Florida

1 Subclass competed with Volkswagen for the same pool of customers.

2 238. Plaintiffs Saturn SW Florida and Victory Layne, and the members of the Florida
3 Subclass have suffered a loss as a result of Defendants' unfair competition in the State of Florida.
4 That loss includes lost sales, price erosion, increased expenses, and loss of goodwill in the diesel
5 vehicle marketplace.

6 239. By reason of the foregoing, Defendants are liable to Saturn SW Florida and
7 Victory Layne and the members of the Florida Subclass for damages resulting from Defendants'
8 unfair competition in an amount to be proved at trial.

9 **TENTH CLAIM FOR RELIEF:**
10 **UNFAIR COMPETITION UNDER ALABAMA LAW**
11 **(On behalf of Windham and the Alabama Subclass)**

12 240. Plaintiff Windham repeats, re-alleges, and incorporates by reference each and
13 every paragraph alleged in this Complaint as if fully set forth herein.

14 241. Alabama law recognizes that a misrepresentation or concealment that is sufficient
15 to convey a false impression to the public mind and is calculated to mislead and deceive the
16 ordinary purchaser in the exercise of ordinary care constitutes unfair competition.

17 242. As described herein, Defendants made false or misleading descriptions of fact,
18 and/or false or misleading representations fact, which misrepresented, and were likely to cause
19 and/or did cause a false impression or were calculated to mislead and deceive ordinary purchasers
20 in the exercise of ordinary care, the fuel economy, performance, and emissions standards of the
21 Class Vehicles. Such descriptions and/or false or misleading representations were made in
22 Alabama.

23 243. As described herein, Defendants concealed facts, which were likely to cause
24 and/or did cause a false impression or were calculated to mislead and deceive ordinary purchasers
25 in Alabama in the exercise of ordinary care, regarding the fuel economy, performance, and
26 emissions standards of the Class Vehicles.

27 244. Plaintiff Windham and the members of the Alabama Subclass competed with
28 Defendants for the same pool of customers in Alabama.

245. Plaintiff Windham and the members of the Alabama Subclass have suffered a loss

1 as a result of Defendants' unfair competition in the State of Alabama. That loss includes lost
2 sales, price erosion, increased expenses, and loss of goodwill in the diesel vehicle marketplace.

3 246. By reason of the foregoing, Defendants are liable to Windham and the members of
4 the Alabama Subclass for damages resulting from Defendants' unfair competition in an amount to
5 be proved at trial.

6 **PRAYER FOR RELIEF**

7 WHEREFORE the Competitor Dealer Plaintiff, individually and on behalf of the
8 Competitor Dealer Class, s respectfully request that the Court enter judgment in their favor and
9 against Defendants, as follows:

10 A. Certifying the Competitor Dealer Class and the Tennessee, Pennsylvania, New
11 York, Florida, and Alabama Subclasses as described above; appointing Carriage Chevrolet,
12 Brown Daub, Eagle Auto, Saturn SW Florida, Victory Layne, and Windham as class and subclass
13 representatives; and appointing class counsel;

14 B. Awarding actual damages for all harm caused by Defendants' wrongful conduct;

15 C. Awarding treble damages for all harm caused by Defendants' wrongful conduct;

16 D. Awarding punitive damages for Defendants' tortious conduct;

17 E. Ordering Defendants to disgorge their profits earned as a result of their wrongful
18 conduct;

19 F. Temporarily and permanently enjoining Defendants from continuing the unlawful,
20 deceptive, fraudulent, and unfair business practices alleged in this Complaint;

21 G. Imposing a constructive trust;

22 H. Awarding both pre- and post-judgment interest on any amounts awarded;

23 I. Awarding costs and attorneys' fees; and

24 J. Providing for such other or further relief as may be appropriate.

25 **DEMAND FOR JURY TRIAL**

26 Pursuant to Federal Rule of Civil Procedure 38(b), Plaintiffs demand a trial by jury of any
27 and all issues in this action so triable of right.

1 Dated: August 16, 2016

Respectfully submitted,

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